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President's Address*

The privilege to lead this outstanding and important group of American physicians is indeed an honor. I deeply appreciate the confidence and trust you have placed in me in making me your president and shall always treasure the memory. Our acquaintance should ripen into helpful friendship and our discussions prove fruitful and stimulating. We realize that the interchange of ideas and thought is of untold value to us. A wonderful friendliness and good fellowship exists among our members.

The persistence of these annual gatherings emphasizes the inevitable conclusion that there must be something of value in the concept. Whatever of worth there may be in the spirit of personal fraternity which results from the coming together of large groups, the motivating power of organization represents a force which is of inestimable value to any such assembly. A successful convention in itself is a product of a vast amount of organization. The best of them are planned a year or several years in advance. A smooth working program of well-conducted features may seem to the average listener as merely the outgrowth of extemporaneous genius but unless there is a plan behind it, any session may find itself on the brink of chaos.

The rank and file individual in attendance may have similar reactions, but this meeting will have missed its mark if it has not impressed him deeply with the essential need of preserving and building up his profession and his organization.

Today the world around is engaged in a fateful struggle — a struggle with the forces of despotism and reaction. All the fruits of more than a century and a half of effort to develop the democratic way of life are at this moment in deadly jeopardy. Once again the autocrats, the tyrants and the dictators seek to ride rough shod over the liberties and freedom of millions of people. They proclaim an ancient doctrine in modern terms—men are but means to ends, not ends in themselves; citizens are just slaves of the State, minions of dictators, pawns in a national power game. These proponents of totalitarianism arraign democracy as decadent, inefficient, muddle-headed and soft. They profane the ancient virtues, scorn our ethical and humanitarian traditions. Mindful of the perils without and the problems within our land, we reaffirm as a great country our faith in democracy, pledge ourselves anew to lift high its banner, if need be to man its ramparts, convinced that democracy is worth defending with our lives and our fortunes.

This occasion brings to mind with renewed forcefulness my heartfelt gratitude for my American citizenship. It is indeed a privilege to live in a nation of builders, where one finds its leaders, statesmen, professional and business men gathered to discuss means of increasing the happiness and prosperity of its individuals and enterprises rather than means of destroying those fundamentals of American life.

I pray that our interests as a nation will continue to center on construction, and that the destruction across the ocean from us may soon cease.

It is indeed a pleasure to participate in this meeting, to learn the plans, problems and programs of you who are contributing in such great measure to the progress and development of our United States.

The medical profession has done more for the race than has ever before been accomplished by any other body of men. These gifts to the people have come in the form of

*Read before the General Assembly, Oklahoma State Medical Association, May 20, 1941.

vaccination, sanitation, anesthesia, antisepsis in surgery, the science of bacteriology and the art of therapeutics.

Like a team of horses slowly pulling a heavy load out of the mire, the physician and the allied professions are side by side slowly but surely liberating the human race from the depths of disease. Their combined value cannot be measured in dollars and cents but rather in years of additional life. Together they constitute the greatest team on earth.

To our members and guests may we say that we trust you will find much to stimulate your interest and to improve your individual methods. We hope that by your contact with various minds and with newer methods you will return to give better care to your patients and thus, enlarge the scope of your practice, through enriched diagnostic and therapeutic methods.

Progress is not automatic. The world grows better because there are high-minded souls who wish that it should, and because they will and dare to take the right steps to make it better. This is what the American Medical Association has been doing for years and is continuing to do for the benefit of the medical profession and those whom it is our pleasure to serve.

The greatest advance ever made in medical science has been made during this century in making possible the prevention of many of our most dreaded diseases. Indeed, it may almost be thought that sanitation is a new science quite distinct from the science of medicine. But in reality there is no such separation, and the prevention of diseases will always be a special department of our profession.

There is no sense in the separation that exists today between the physicians in active practice and their brother in the laboratories. Theory and practice must always go hand in hand if either is to be of greatest use. The bacteriologist, if he gives not half his heart to the widest clinical application of his knowledge, will lose his highest inspiration. And the busy practitioner, who aspires to the highest fulfillment of his mission must now keep in touch with the searchers in the world of germs.

Under monarchial governments we might petition the king and his councillors for medical reforms. But in a republic, reforms originate not in professional petitions, but in popular demands. The people are willing to be persuaded, and must be persuaded before they undertake reforms. Direct responsibility, therefore, rests upon those who alone are able to lead such movements.

In the evolution of this country we have not yet attained the condition of a perfectly representative government. And it is only in the higher development of this grand policy that our national hopes safely rest. Geographical sections may be represented, and voting districts may already be numerically equal, even political parties may be justly represented, but real representative government requires also that each class, profession and trade shall be represented. Such government, so far as our profession is concerned, can easily be obtained by concerted action. And one of the functions of the State Societies ought to be the nominating of our representative for public service in those departments where the help of our profession is needed. Such nominations would have the binding force that honor always imposes. And the physician's public service would be far easier if undertaken at the request of his professional brethren.

But it is not enough that we strive merely to secure the election of our professional representatives. It is even more important that we shall take a greater interest in public matters. Public measures that especially concern the medical profession should be discussed; and our opinions as physicians should be made known at the proper time, that is, in the formative stages of legislation when such opinions may be of some use.

If and when changes come that effect our profession, and the physical welfare of our people, our organization is the agency that must certainly direct these changes, this can be done if we are thoughtful, united and energetic.

The three great needs are; First, an individual recognition of our responsibilities for extra-professional public service; second, concerted effort to secure proper professional representation in the government, and third, a continued interest in the public service of our fellows for their encouragement and support.

Shall we prove ourselves worthy of our inheritance? In times of peace and prosperity shall we begrudge giving some small portion of our time to public service? Rather, as we return to our routine responsibilities, shall we not also willingly assume our extra-professional obligations?

I plead in behalf of anxious parents, who would give their all to insure the health of their children, but who do not know as you know, in what ways this might be done. I plead in behalf of the distressed, for whom the public would gladly do more if only the way were pointed out. And, finally, I plead in behalf of generations yet unborn, that this dear land of ours shall be more jealously preserved from contamination, in order that it may be the healthful home for succeeding generations.

Society needs more and more the benefi-

cent and uplifting influence of an expanded, scientific health service, motivated by altruism and sincere desire to improve mankind. Rene Descartes, the great French philosopher, said three centuries ago in words that are very applicable today: "If ever the human race is lifted to its highest practicable level intellectually, morally and physically, the science of medicine will perform that service."

Fortunately the possibilities of investigation and of discovery are not confined to a few great men. Every patient is more or less a problem. In the healing arts more than in any other vocation that I know, the rank and file are constantly stimulated by their experiences to suggest new ideas and almost every practitioner occasionally makes some new observation or develops some useful idea in practice.

It is our problem to insure to the people the medical attendance it deserves, at terms it can afford and in a way that a self-respecting citizen, not desiring, nor needing charity, can accept. This social evolution can be controlled. Without prejudice, with full consideration of all schemes or proposals, we can, by rendering efficient service to the public, by more nearly equalizing costs of medical care, and by promoting the general health of the public, keep this evolution from becoming a revolution, with worse conditions resulting.

How fortunate that the state cannot at this time afford to consummate state medicine. Some of our men who are short sighted or misled would sell their birthright for a mess of pottage. State medicine would become a political racket, tax-paid, and the public would have no choice of physicians or treatment.

In earlier times the chief activities of a medical society were scientific and social. Today a different situation exists. Now the whole world seems involved in a maze of doubt, uncertainty, and dissatisfaction. Eco nomically, politically, socially and scientifically, we are in a state of unrest.

One of the major dangers facing medicine today is state control. Our own experience shows that Government has been remarkably penurious in providing medical care for those on the WPA rolls, or the blind, or dependent children, or the decrepit recipients of old age assistance who above all others require generous amounts of medical service.

In the face of this deplorable situation, it is most startling and incongruous to read the plans of the various handsome young men in Washington, who are endeavoring to make their name and fame by concentrating their efforts on putting over a great new national health program, including public health work, hospital building and health insurance. "Absurd," you say? Not at all. These modern glamor boys are deadly serious in their emulation of Bismarck and Lloyd George, and therefore the whole scheme is dangerous — perilous to the health of the people and to the thread of democracy in our land. The plan of socialized medicine known as Senator Wagner's National Health Program has not its roots in the democratic principles which have made this country great. The answer to the nation's health needs, does not lie in a Fascistic philosophy which like poison gas, spreads, injures and kills all and everything in its ever widening path.

Ambition should not be fed on the health of the people. Further, Government must assume its rightful responsibility for the care of those on the welfare rolls but there must be a line beyond which Government must not step without usurping personal responsibility.

Schemes for the better distribution of competent medical care have of late occupied prominence in the public eye. Most of these have been based upon revolutionary concepts; many have subsequently floundered on this shoal. The ideal plan for medical help for all the population has not yet been conceived. Perhaps one day experimentation of the intelligent sort, free from acrimony and divorced from politics, may point the way. To date, unbiased judgment must concede that the time tried methods of private individualized American medicine is far away the best system yet devised. It isn't just coincidence that a free, untrammeled American system of medicine, has during the short life of this republic, increased the life expectancy of its citizens from 32 years to 62 years.

The American Medical Association has never been unmindful of the necessity of constructive changes in the methods of organizing medical care or in the appropriate functions of the government in protecting the health of the people.

At its first meeting in 1847 it urged the establishment of "state medicine," a term which was used at that time to describe what later became known as public health. The organized medical profession has always used its influence for the establishment and proper administration of state and local health departments. It has been more than sixty years since the American Medical Association first advocated the establishment of a National Department of Health, with its head a member of the Cabinet. For many years the Association endeavored to secure the coordination of Federal Health activities through such a department, and the 1938

special session of the House of Delegates again recommended the establishment of a federal health department with a secretary who shall be a doctor of medicine and a member of the President's Cabinet.

A measure is at this time pending in our Congress to carry out this program, and every member of organized medicine should use his full influence to obtain passage of this measure.

The National Health Conference was called in Washington on July 18-20, 1938, to consider the national health program. This program, which was presented with little opportunity for thorough or dispassionate discussion or modification, was based largely on a survey conducted by the United States Public Health Service through the use of WPA clients. The accuracy of many of the basic conclusions of this survey is open to strong suspicion. Instead of presenting an unfounded opposition to schemes of compulsory sickness insurance the American Medical Association has given to such schemes more study, over a longer period, than the individuals or institutions that advocate such systems of insurance. This study, which has covered all existing systems throughout the world, has led to the conclusion that any scheme by which medical service is treated as a commodity that can be purchased wholesale by governmental or lay organizations and that is distributed at retail to patients, results in a superficial service that not only delays the conquest of disease but actually increases some forms of sickness and has not been shown to be as helpful as present methods now generally practiced in reducing mortality.

It is apparent that medical service is not a commodity that can be bartered by a third party without losing much of its efficiency and that for medical service to be most effective the transaction must be entirely between the patient and his doctor.

Those who talk so glibly of making over this profession of ours—this profession rich in traditions; this profession which has attained such noble worth; this profession surfeited by kindness and sympathy; this profession whose only passwords are mercy and pity—have lost sight of the art of medicine. They would, by a stroke of the pen, destroy this almost divine principle; they would reduce all these human attributes of kindness, pity and mercy, to a formula. They would put the matter on a business basis under the assumption that only scientific medicine need be applied to the sick in order to effect a cure. What an abysmal misunderstanding of the principles involved. What gross injustice and what cruel denial would result. The art of medicine and its application must remain unchanged. Nothing must make unheard those words so often expressed by the sick: "Doctor, I'm so glad you have come." There is wrapped up in that one sentence the epitome of the medical art which has existed through the centuries. It is akin to the child who reaches out his hands to the mother and finds solace and understanding in her arms.

The art of medicine has not changed. The passwords of mercy and pity, are the same today as in the days of Hippocrates and the doctors of the old school. These qualities of the human soul must not die if the art is to exist. Would you have me suppose that they can be reduced to a business formula? Would you have me think that they can be turned on and off by a switch? I call you to witness, that this can no more be done without debasing the quality than one can stifle the love in the human breast for its Creator without dwarfing the soul.

We have been called ungenerous, mercenary, illiberal and selfish. If to reach the principles of sanitation and hygiene; if to broadcast rules and programs of maintaining health; if to give freely the discoveries of science resulting in the eradication of suffering and disease; if refusal to patent new remedies or to keep them hidden and secret; if to apply knowledge of preventive medicine to the wiping out of specific diseases, if constantly to diminish our private practice and business by the dissemination of all this knowledge — if all this be ungenerous, then, thank God, I belong to such a selfish group!

It would take Divine wisdom to foresee the future, but it only requires common sense to keep constantly before ourselves, before the public and before our legislators, the necessity of maintaining unsullied whatever is noble and worthy of the medical art. The only guide we have for the future is experience. Experience is largely the record of our mistakes. Lord Byron said, "The best prophet of the future is the past." There is ample evidence in events of the past of the deterioration of medicine under political influence. There has been no material dissatisfaction of the public with the present type of medical service.

When the physicians in the United States become, if they ever should, mere robots of a huge national compulsory system of medical care, making diagnoses from card indexes and mechanical gadgets, and prescribing treatments from prepared and numbered labels, and when patients become a mere collection of interesting human parts to be shunted from one corner to another of a medical repair shop for some heartless and pseudo-scientific tinkering, America will have lost one of its greatest institutions —

free and independent medicine — and the American people will have lost some of their most valuable human traits, namely, confidence in, respect for, and reliance on the scientific men and women who protect their health and prolong their lives.

It is up to the medical profession of this country, the organized medical profession as represented by the county and state medical societies and the American Medical Association, to conduct the necessary education of our people as to what is the right kind of medical care, as to the importance of good medical care for human happiness, as to the importance of medical costs, in the family budget in relationship to the costs for all of these other luxuries of life which have come to be for many of the American people necessities. If the American people are properly educated they will realize that medical care is so intimate a matter for the average man and for his family, so important a matter in relationship to their lives and to their happiness, that they will want to decide that matter for themselves in each instance and not have it decided for them by bureaucracies, by foundations, by social workers, or by any other system.

Recently, as you know, the American Medical Association by some fantastic reasoning has been found guilty by a court in the District of Columbia of violating a Federal statute; however, the individual physicians who were indicted and tried along with the American Medical Association were exonerated. The mental gymnastics and legal contortions that were practiced to arrive at this verdict are to me almost beyond conception. I am advised that this case will be taken to the court of last resort so that we may finally be advised as to how we may be classed, whether as professional individual or a tradesman.

I have been happy to bring to you these remarks because in the history of the development of our profession, we recognize the general pattern of progress that has marked the growth of all branches of medicine and surgery; a pattern which yesterday molded our present miracles of healing and which today is laying plans for new improvements which will startle the world tomorrow and bring a multitude of humanitarian blessings to all mankind.

Some Mechanical Factors Involved in the Production of Hiatus Hernia of the Stomach*

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A great deal of interest has been manifested in small diaphragmatic hernias since Friedenwald and Feldman[1] published their paper describing this condition, in 1925.

The disorder consists of a herniation of a small portion of the stomach, in the region of the cardia, through the esophageal opening into the thorax. Its size ranges from that of a marble to a medium sized orange.

Von Bergmann,[2] in 1932, published a paper on the subject calling it "Hiatus Hernia." This name has become well established in differentiating this hernia from other diaphragmatic hernias.

Akerlund,[3] in 1926, proposed the following classification for this particular type of hernia, and his arrangement has been widely quoted since that time:

1. The short esophagus type: A congenital shortening of the esophagus in which the herniation of the stomach is permanently fixed above the diaphragm.
2. The para-esophageal type: In this group a portion of the fundus of the stomach passes into the chest alongside the esophagus, the distal end of which remains below the diaphragm.
3. The gastro-esophageal type: This form is produced by the cardia of the stomach being displaced upward into the thorax, pushing the lower end of the esophagus ahead of it.

*Read before the Section on General Medicine, Annual Session, Oklahoma State Medical Association, May 21, 1941, in Oklahoma City.

Most cases of this type of diaphragmatic hernia produce very few symptoms, however, a certain percentage will give a fairly uniform type of history, which fits into a well defined pattern. As a result, a rather characteristic symptom complex has evolved, the complaints manifesting themselves, in general according to the following outline:

Epigastric and substernal distress, often spoken of as "pressure," in varying degrees of severity. At times the distress shifts to the precordial region, may become painful and radiate to the left side of the neck, the left shoulder and down the left arm. As a rule the symptoms are produced, or aggravated, by any increase in intra-abdominal pressure, such as leaning forward, lying down, straining, or wearing a tight abdominal garment.

Relief is usually gained by release of this pressure.

Many splendid papers have been published dealing with this phase of the subject. Among the contributors are: Friedenwald and Feldman,[1] Von Bergman,[2] Hurst,[4] Harrington,[5] Cunha,[6] Levy and Duggan,[7] Morrison,[8] and Jenkinson and Roberts.[9]

The underlying cause of the herniation is generally conceded to be congenital. Hurst[4] points out that abnormal laxness of the tissues surrounding the esophagus, as it passes through the diaphragmatic opening, creates an area of weakness which is susceptible to varying amounts of intra-abdominal pressure. Age, accompanied by atrophic changes, and lack of tissue tone are generally thought to play a leading role in this laxness of tissue around the esophagus. Akerlund[3] considers the condition so prevalent in older people as to be almost physiological.

Harrington,[5] in a special monograph, states, "The diaphragmatic-esophageal membranes and the loose attachment of the peritoneum at the cardia, have considerable bearing on the occurrence of hiatus hernias. It is probable that the hiatus hernias of elderly people which are accompanied by insufficiency of the hiatus, are attributable to atrophy of their protective elastic membrane, particularly in cases in which there is an abnormally large hiatus."

In a series of 24 cases which we have collected since 1934, nineteen give no definite history of any causative factor for the formation of the hernias. Most of them are in the age group between 50 and 70 years, and the laxity of the tissues surrounding the esophagus as it passes through the diaphragm, plus varying degrees of increased intra-abdominal pressure, probably account for most of these herniations. However, in the remaining five cases, evidence can be cited of definite mechanical factors involved in the production of the hiatus hernias.

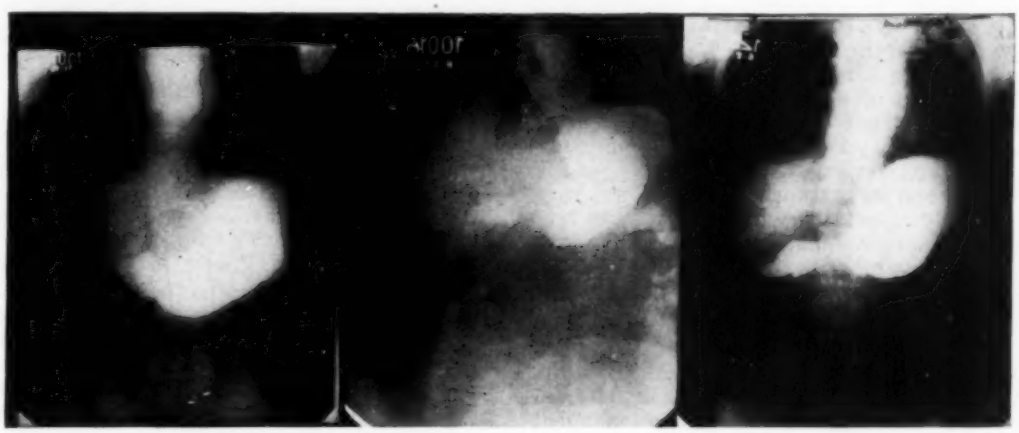

Figure I. X-ray before injury shows no evidence of hernia.

Figure II. X-ray after injury shows large hiatus hernia, which passes through the esophageal opening.

Figure III. X-ray shows hernia with relaxed cardia.

Case 1. Figures 1 and 2.

R. G. F. White—Male—Age 80. This man was first seen January 15, 1935, and was complaining of burning of tongue, loss of appetite, loss of strength, "uneasiness" in abdomen, and constipation.

Chief findings at this time: Macrocytic anemia, R. B. C. 2.500.000, Hbg. 58 per cent. No free hydrochloric acid was found with the Ewald meal. Diverticulosis, involving the

descending colon, and arteriosclerosis. Decided improvement was noted on rest, liver, iron, dilute hydrochloric acid, and a soft, balanced diet.

On January 15, 1937, the patient slipped and fell on the icy steps of his back porch. He was unable to walk and complained of severe pain in the lumbo-dorsal region of the back, and extending forward into the epigastric region.

X-ray findings of the spine January 27, 1937, revealed a compression fracture involving the body of the first lumbar vertebra. The patient was in bed for eight weeks because of the fractured vertebra, and during this time he frequently complained of substernal fullness and pressure after eating. We gave very little attention to this complaint, feeling that it was due to the fractured vertebra. About eight months after the accident the patient came into the offiffce complaining of burning, fullness, and pressure in the epigastric region, worse after meals, and especially noticeable on bending over to pick up some object, such as gathering eggs. Pain was frequently associated with the pressure and at times severe enough to cause patient to faint, the pain radiating to the precordial region. Difficulty in swallowing was usually present also when the distress was severe.

X-ray examination of the G. I. tract at this time shows: A large hiatus hernia measuring 9 cm. in diameter. The hernia is not fixed and passes freely through the esophageal opening. With the patient in the vertical position there is no evidence of herniation unless abdominal pressure is applied. In the prone position or in the Trendelenburg position, the hernia can be constantly seen, expanding and contracting with respiration.

In this instance we were fortunate in having x-ray films of the stomach before the accident occurred. Comparison of the films discloses no evidence of the hernia on the first film, while it is quite definite on the second film. The accident was severe enough to cause a compression fracture of the body of the first lumbar vertebra and therefore must have caused extensive damage to the soft tissue in this region. The age, plus the severe anemia, probably contributed to a marked loss of tone, involving the tissues in this case, and thus there was very little resistance to the stress and strain accompanying the injury.

Case 2.

G. W. T. White—Male—Age 85. In this case the chief complaints are dizziness, loss of appetite, and burning in stomach. The patient states that associated with the burning in the stomach is a feeling of substernal pressure, which causes him to cough. The cough is not productive. The distress is worse after eating, is frequent at night, or when lying down during the day. At times there seems to be a lump in the "pit" of the stomach.

These symptoms developed, following an injury three years ago. At that time he fell into a greasing pit, landing with his stomach across a ladder. The injury was severe enough to cause him to lose consciousness for a short time, and when he awoke he was aware of severe epigastric distress and soreness, which lasted for several days. Since that time the above symptoms have been present in varying degrees.

The abdomen shows slight tenderness in the left lower quadrant, and in the epigastric region.

Ewald test meal shows free hydrochloric acid 27 per cent.

Roentgenological examination, May 2, 1938, Figure 3.

With patient in the recumbent position, a small portion of the stomach near the cardia passes through the esophageal opening into the thorax. The cardiac sphincter is pushed above the herniated portion of the stomach, and is relaxed.

Here again we have a severe injury in a man of advanced age. Apparently the hernia was produced at the time of the crushing injury as the characteristic symptoms of substernal pressure, that are increased at night, or when lying down during the day, have developed since the accident.

Case 3.

F. A. McM. White—Male—Age 66—Lawyer. Complains of substernal and epigastric pain which is worse at night or when lying down. The pain frequently awakens him at night and causes loss of sleep. It starts as a tightness, or pressure, in the sub-xiphoid region, becomes painful, then radiates to the precordial region, and outward to the left shoulder. The attack is usually promptly relieved when the patient assumes the upright position—drinking milk or water, also helps.

The patient gives a history of sustaining a severe injury in an auto accident three years ago, being thrown with crushing force against the steering wheel. The chest and abdomen were chiefly involved. He was incapacitated and remained in the hospital for two weeks as a result of this inqury. The above symptoms developed and have been increasing since the accident.

Roentgenological examination, March 25, 1938. Figure 4, shows: A hiatus hernia, about 3 cm. in diameter, which can be seen passing through the esophageal opening. The hernia is "phantom like," rapidly appearing, and disappearing, with respira-

tion. The hernia cannot be detected with the patient standing.

At re-examination on October 21, 1938, the hiatus hernia can be seen plainly with the patient in the Trendelenburg position. Inspiration increases the size, however, at this time, it is constantly present, not disappearing with expiration. With the patient on his abdomen and the head turned toward the left, the hernia disappears, then reappears when the head is turned toward the right. This finding may prove of value in the treatment. The hernia is larger than at the last examination, measuring 5 cm. at this time.

provement, with the fluoroscope revealing a decrease in the size of the hernia.

Case 4.

Mrs. J. F. H. White—Female—Age 41 —Housewife. Presents herself with a history of difficulty in swallowing for the past year. She states that any attempt to swallow dry food seems to produce a spasm of the esophagus, causing a feeling of tightness at the lower end of the sternum and also a sensation of choking. Pressure frequently develops in the substernal region, at times shifting toward the precordium.

There is no pain or radiation to the shoulder. Occasionally the patient will vomit and

Figure IV. X-ray shows a hiatus hernia about 3 cm. in diameter, which passes through the esophageal opening.

Figure V. With patient in upright position, a diaphragmatic hernia can be seen.

Figure VI. This X-ray shows herniation of the fundus of the stomach through the esophageal opening.

The electrocardiogram report is normal.

Ewald test meal shows free hydrochloric acid 60 per cent.

The last x-ray examination, July 17, 1939, notes the hiatus hernia does not appear quite as large as at the previous examination.

The patient although younger is still in the proper age group for hiatus hernia development. The crushing injury, to the chest and abdomen, evidently was the chief factor in the formation of the condition. Evidence of continued increase in size of the hernia following the injury, can be seen by the second x-ray report, which was made seven months later. The symptoms also increased in severity during this time.

Following this second examination the patient refrained from large meals, and slept with his head and shoulders moderately elevated. He also avoided stooping, and unusual straining, or any motion that would cause undue increase in intra-abdominal pressure. The result was marked symptomatic im-

experience relief. Usually, it is necessary for her to walk around the room for a short time, in order to bring about substernal relaxation and subsequent ease.

Gastric analysis shows free hydrochloric acid 44 per cent.

The sequence of x-ray reports made on the different dates are as follows: February 11, 1936, with the patient standing, the esophagus and stomach appear normal. However, with the patient lying on the table, herination of the stomach, through the esophageal opening, may be seen. The hernia being about 5 cm. in diameter. On May 24, 1938, Figure 5, there is an increase in the size of the diaphragmatic hernia since the previous examination, and it can be seen with the patient in the upright position. At this time the presence, in the abdomen, of a large, slightly dense, rounded mass, showing pressure against the inferior surface of the stomach and colon is seen.

This mass proved to be a large ovarian

cyst. Operation was advised and performed in the next few days.

After the operation the x-ray reports are as follows:

On June 28, 1938, the diaphragmatic hernia through the esophageal opening can be seen, with the patient in the Trendelenburg position only. During deep inspiration, a small diaphragmatic hernia can be outlined.

With the last fluoroscopic examination on September 12, 1939, the hiatus hernia again cannot be seen with the patient standing. In the horizontal position it is about the size of a cherry. In the Trendelenburg position, with deep inspiration, it develops into the size of a walnut. This is a definite improvement since the operation for removal of the ovarian cyst.

A developing diaphragmatic hernia, as a result of long continued progressively increasing intra-abdominal pressure, due to the growth of a large pelvic and abdominal tumor, can be graphically followed in this case history. Following the first examination, we lost contact with the patient for slightly over two years. During this interval, the hernia increased markedly in size and at this time could be seen constantly, with the patient standing. About one year after removal of the cyst, fluoroscopic examination revealed a great reduction in the size of the hernia, and there was no complaint of substernal pressure. Curiously, the symptoms, in this instance, were not so intense as in some with much smaller protrusions. Probably this fact can be explained by the slow development and resulting accomodation to the displacement and pressure caused by the hernia.

This is the only case in the series that the hernia could be demonstrated with the patient standing, without the application of abdominal pressure, and of course was due to the constant sub-diaphragmatic pressure.

Case 5.

D. E. F. White—Male—Age 57—Designing Engineer. The patient first noticed indefi nite periodic substernal distress about five years ago. The symptoms were so slight at that time that he remembers very little about the details as to intensity and character, except that the distress usually occurred while he was standing at his work table preparing his draft designs. He gives a history of frequent swimming and diving over a period of many years. The past year, and especially the past two months, the substernal distress has taken on the nature of a severe "heart burn" and feeling of pressure, or at times, the sensation of a "lump." The intensity of the symptoms causes him to seek relief. This he obtains by walking across the room and getting a drink of water. Taking alkalies, without walking across the room for a drink of water, results in very little relief. He times the attacks as occurring one to two hours after meals, and usually when working at his table.

X-ray findings, March 25, 1941, Figure 6, show herniation of the fundus of the stomach through the esophageal opening, about 5 cm. in diameter. The hernia cannot be seen with the patient standing unless pressure against the abdomen is used. However, when he is in the prone, or the Trendelenburg position, it can be easily demonstrated, with deep inspiration, then becoming smaller with expiration.

Stool examination negative for occult blood.

Gastric analysis shows 44 per cent free hydrochloric acid.

The history of swimming and diving, of many years duration, is important in this case. He states it is not unusual for him to land on the water with great force, when diving. The abdomen and chest bearing the brunt of the impact in such instances. In his work, as a designing engineer, he stands leaning over a work table, the edge of which presses against his abdomen almost constantly. As noted above the substernal distress develops at this time, and is relieved when he walks away from the table and takes a drink of water. The swimming and diving, with the accompanying stress and strain, and sudden increase of intra-abdominal pressure, in striking the water, especially when the technique of the dive is faulty, furnishes an area of decreased resistance in the region of the esophageal opening. In addition, increased intra-abdominal pressure was undoubtedly produced by his leaning over the table with its edge compressing the abdomen.

The mechanical factors were operating over a long period of time, therefore it is small wonder that a hiatus hernia developed as the age of relaxing tissue tone was reached.

SUMMARY AND COMMENT

All five of these cases show definite mechanical factors involving the production of hiatus hernias.

Three of them present histories of sustaining violent and crushing injuries. The symptoms in each case followed the injuries closely and continued to increase in severity for some time. All of them showed improvement when they followed instructions to avoid, as much as possible, the production of any increased intra-abdominal pressure. Apparently, in addition to any previous existing weakness, the muscular and other tissues, surrounding the esophagus, as it passes through the diaphragm, were stretched and loosened at the time of the accidents, thus

creating an area of lowered resistance at the hiatus which was, in turn, vulnerable to any form of increased sub-diaphragmatic pressure. An interesting point to be noted is the severity of the symptoms, presented by this injury group, in contrast to the mild symptoms more frequently encountered in any non-injury group. This probably is accounted for by the fact that the herniation was produced suddenly, and then, enlarged rapidly in size. With the result that very little opportunity was given for adjustment to the new pressure conditions.

Another finding which engages the attention is the fact that all of the injury cases were in men. This may be due to the probability that men are more prone to receive severe crushing injuries, than are women. As a consequence, this type of diaphragmatic hernia, resulting from sudden severe injuries is more likely to be found in men. While collectively hiatus hernias are more often found in women.

One case presented evidence showing the role that large pelvic, or abdominal, tumors play in gradually increasing the intra-abdominal pressure. Of course, some degree of weakness was likely already present in the peri-esophageal region, before the tumor developed. However, the increasing intra-abdominal pressure must have been the chief factor in this instance. One might ask why pregnancies do not produce diaphragmatic hernias more often. The answer may be that the pregnancies usually occur in a much younger age group, in which the structures of the body are very resistant to trauma and its resultant forces. On the other hand, it is possible that they are more often present during pregnancy, than they are diagnosed.

The last case clearly reveals the different mechanical forces, working in perfect teamwork, each complementing the contribution of the other. However, even with these mechanical factors operating for years, the herniation was not produced, at least the symptoms did not appear, until the proper age grouping was reached.

These case histories have been recorded somewhat in detail, calling attention in each instance to some of the mechanical factors involved, in the production of esophageal hiatus hernias. It is my purpose, in so doing, to indicate the type of history that, under certain conditions, may act as a clue to the diagnosis of this not uncommon condition.

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Reducing Mortality of Cancer*

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About one hundred and fifty-three thousand people in the United States die of cancer each year. This death rate is exceeded only by heart diseases. More is known about the etiology and treatment of cancer than ever before, but regardless of this, many people are dying from this dread disease.

Let us, if we may, look into some of the causes of this high death rate. Of course more cases of cancer are diagnosed and treated than formerly. Probably the medical profession is more on the outlook for cancer and more careful in diagnosis. Physicians are more careful in reporting deaths than formerly. This in a way may account for some of the seeming increase of cancer. But why do we yet have such a high death rate? First, diagnosis is not made early enough, and, second, many cases are not adequately treated.

Early diagnosis and adequate treatment is the whole story. We have nothing new to tell you about this, and all we shall try to do will be to emphasize some of the things we already know, and have heard emphasized over and over again.

Why are so many cases not diagnosed earlier? First, the public is at fault and, second, the profession is at fault. Many people are too late in going to their doctor for advice about a skin lesion, a lump in the breast, an abnormal discharge from the uterus, or a digestive disturbance. They often think because the condition is causing but little, if

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any, trouble, it is not necessary to do anything about it. They think it will be early enough to see a physician when it begins to cause trouble. This is often too late for a cure. Some fear the physician will diagnose the trouble as cancer and want to operate or use x-ray or radium. There are many who dread to have surgery, x-ray or radium used, thinking that these agents might scatter the trouble. They hope the trouble may right itself. The people are not altogether to blame for this. They have been flooded with much literature and radio broadcasts by quacks, condemning the use of all these agents. There are many so-called cancer doctors who advise the people that they have a paste or solution that is a sure cure, as it takes the cancer out by the roots. We are often asked if x-ray and radium get the cancer roots. Arguing with some of these people is a waste of time and patience. It seems that many people do not have the confidence in the profession that they once had, since the government has taken a hand in trying to regulate the profession. I think we should try doubly hard to show the public that the medical profession has worked and always will work for the best interest of the public.

In what ways are the doctors at fault in the early diagnosis and treatment of cancer? We must admit the fact that some doctors are not as careful in their diagnosis and treatment or recommendation for treatment as they should be. For example, they may see a skin lesion, or a lesion in the mouth or on the lip. If the patient says it has not bothered him they may tell him to leave it alone, or what may be as bad, apply caustics. If a woman comes with a lump in the breast, she may be told to leave it alone, if it has not bothered her. If a woman has an abnormal discharge from the uterus, her physician may not even make an examination to determine the cause, but dismiss her with the advice to take a douche. If one is complaining of digestive disturbance, often the physician does not go into the history and examination thoroughly enough to make a diagnosis, but dismisses the patient with a prescription for kaomagma or some other concoction. I hope no one will think that these criticisms are being made just to be critical of the medical profession. I am offering these criticisms that the profession may be more careful in its examinations and advice. What we tell a patient who comes to us for advice may mean life or it may mean death. It is too serious to guess about. If we do not feel confident of our diagnosis we should seek help. It is no disgrace to ask for consultation.

It is a question of giving sound advice to all the public, and for every physician to learn everything he can about cancer and precancerous conditions. It is a long road to travel and many will die while the program is being put over. The American Society for the Control of Cancer is doing a great work in giving information to the public as well as to the profession. But there are many who are not getting this information. If funds could be made available, this work should be greatly extended. The essential facts about cancer should be brought to every high school student, through lectures, the screen, and literature. In this way much valuable knowledge will be carried into every home. More attention should be given to this in our various clubs and organizations. More newspaper articles, even in weekly newspapers, should be carried. Quacks get their advertising into the papers, why not counteract this by reliable information from the medical profession?

Under "Current Comment" in The Journal of the American Medical Association for April 19, 1941, it is stated that almost one out of every ten deaths in the United States and Canada is due to cancer. It further says that many physicians do not follow their own advice, and have personal periodic examinations. The American Society for the Control of Cancer proposes such a program for physicians, whereby they may have a yearly checkup. As the comment further states, a powerful influence would be exerted on furthering the educational program of prevention of cancer by periodic examination.

Physicians should have access to courses of study in one or more centers in each state where they may study the diagnosis and treatment of cancer. If we could have a course in the diagnosis and treatment of cancer, such as we have had in obstetrics and pediatrics given to groups of physicians in all parts of the state, I am sure the physicians would appreciate such a course, and that it would be of great value to them and likewise to the public.

All physicians should have access to a good laboratory where they could have tissue examined, regardless of whether the patient can pay for such examination or not. So many people are not financially able to pay ten dollars for a biopsy.

After an early correct diagnosis has been made, then it is important to see that our patient has early and adequate treatment. Surgery, x-ray, and radium are our best agents. We can not have trained physicians and equipment in every county for the proper treatment of cancer. I think more young physicians should make a special study of cancer, as many are doing. We have institutes and hospitals where they may take intensive courses in the diagnosis and proper

treatment of cancer. Such physicians after proper preparation could locate in communities of one hundred to two hundred thousand people, and be of great service, even if they treat only minor conditions. Some of the major work could be referred to the larger centers, if necessary. I do not believe we will ever solve the cancer problem, till more of the rural population are reached, and I do not believe they will be reached till more physicians are trained for this work and are content to locate in rural sections.

I believe that any one with cancer, regardless of his financial circumstances, should have access to some doctor or to some institution where he may receive proper treatment. I trust that in the near future, patients may not have to wait for weeks or months for treatment, on account of lack of room. May we hope that while billions of dollars are being spent for armaments of destruction, some of it may be spent for saving the lives of those afflicted with cancer.

Acute Retrobulbar Neuritis*

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A chairman's address is often used to review recent advances in one branch of medicine; a presentation of original work or thought; an analysis of sociologic trends affecting medicine, or one in which he gives of his experience and warns of pitfalls as in Dr. Gradle's most admirable recent address before the Southern Medical Association entitled "Glaucoma Errors That I Have Made and That I Have Seen."

I do not feel qualified to address you along any of these lines, but shall discuss briefly an old subject in ophthalmology, namely, retrobulbar neuritis. The occurrence of four cases of acute retrobulbar neuritis in my practice in the past few months has awakened in me a desire to know more about the condition, and from my study a few thoughts have crystalized.

My early concept of retrobulbar neuritis was the narrow limits imposed upon it by most textbooks, and by my teachers, i. e., a discrete inflammatory area in the optic nerve causing sudden blindness but with no obvious ophthalmoscopic changes in the nerve head in the early stages. For teaching purposes other classifications were worked out for those showing early changes in the nerve head or other characteristics. For practical purposes any inflammation of the optic nerve, chiasm or tract is retrobulbar neuritis. Inflammation limited to only the fibers on the disc anterior to the lamina cribrosa is practically impossible. Plaques of inflammation occurring close to the globe show themselves to be so placed by venous congestion of the disc or marked swelling and papilloedema, the picture of optic neuritis. This variation from the one in which the nerve head does not change appearance depends on the location of the inflammatory area with relation to the entrance of the retinal vessels into the optic nerve, usually about 12 to 14 mm. behind the globe. Those in front of this point will cause obvious changes in the nerve head; those behind will usually result in a normal appearing fundus. Thus, the two conditions are in truth the same and the attempt to separate the two as entities is confusing, or so at least it has been to me. It does serve a useful purpose however to distinguish between the acute inflammations and the more chronic forms arising from toxic factors, such as tobacco-alcohol amblyopia, or nutritional factors, such as avitaminosis, diabetes or blood dyscrasias. These are slow in onset and take weeks or months to do the damage that is done in hours or days in the acute forms.

The cause of retrobulbar neuritis has been a matter of considerable conjecture. A partial list of conditions which have been given as the cause include focal infection, most

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particularly posterior ethmoid and sphenoid involvement, tonsillar infection, allergy, pregnancy and lactation, post influenzal toxemia and multiple sclerosis. Opinion has been most sharply divided between the two chief causes, multiple sclerosis and sinus disease. This division of opinion is usually quite dogmatic, many attributing all cases to multiple sclerosis and none to sinus disease or vice versa. To my mind, both such dogmatic adherents are probably wrong, for the condition no doubt has many more than one single etiologic factor. Foci of infection may cause it, but in my experience, removal of those foci have not influenced the final outcome or affected the final vision. Benedict discounts the effect of sinus disease in the etiology, and attributes the reported improvement after their operation as non-specific, such as the non-specific protein effect of the absorption of blood following the operation. All agree, however, that definite evidences of infection in sinuses, tonsils, etc. should be removed. As regards the possibility of a large proportion of these cases being manifestations of multiple sclerosis; the condition is not as common in this part of the country as in the east where multiple sclerosis makes up a fair share of the neurological cases in the clinics and hospitals. In St. John's Hospital in Tulsa, a general hospital admitting five to six thousand cases yearly, the diagnosis has been made four times in the past seven years. No doubt some cases have gone undiagnosed, but certainly it is uncommon. In this regard, let me interject the things to be looked for in history and physical examination to make one suspicious of a possible multiple sclerosis etiology. Careful questioning may bring out past periods of transient numbness or tingling in fingers, arms, or legs; or transient extra-ocular paralysis, not explained at the time of occurrence. One of the early and often unrecognized symptoms is sphincter control difficulties, especially the urinary bladder sphincter. Multiple sclerosis affects young adults and an admission of difficulty in starting the urinary stream in a young individual should not be overlooked. Several or all of the following physical findings may be present: absence of abdominal reflexes, positive Babinski reflexes, hyperactive deep reflexes, intention tremor, which may be very slight and difficult to detect, and of course later on, scanning speech, impaired gait, paraplegias and hemiplegias. The early signs must be looked for, and not the classical triad so often used in describing multiple sclerosis in textbooks, intention tremor, scanning speech and nystagmus.

Microscopic examination of the nerve during the acute stage is not possible, but the process is, no doubt, that of localized areas of perivascular infiltration leading to transudation of plasma and lymphocytes into the spaces. The myelin sheaths are almost invariably swollen, and later may be lost. Duggan explains many eye conditions on what he calls a manifestation of acute localized tissue anoxia and of acute retrobulbar neuritis he says ". . . (it) is due to an acute vascular catastrophe in the optic nerve, characterized by arteriolar spasm and increased capillary dilatation and permeability leading to localized edema, tissue anoxia and loss of function in the involved tissue." On this basis he treats the condition by vasodilatation, about which we will speak briefly later.

The patient does not always come in as soon as the decreased vision is noted, many cases delaying a week or more during which they go to non-medical refractionists for changes of lenses or await the clearing of vision which they attribute to a "cold in the eye," or some other absurd cause. Pain in movement of the affected eyeball will bring in some earlier, though it is not a common symptom. The diagnosis, is, of course, made by finding central vision reduced, this reduction being caused by an absolute scotoma, almost always central but frequently in the early stages paracentral, later becoming central, or caecocentral. Ophthalmoscopic examination reveals a normal fundus in most cases or some disc edema as mentioned before, depending on the location of the lesion. The remainder of the examination in the diagnostic search is turned toward discovering the cause, about which we have spoken.

In the treatment as much difference of opinion and of ideas has arisen as in its etiology, as one would expect. Some textbooks would suggest that it being a self-limited process, treatment is of little importance, and also that most cases fully recover, with or without treatment. This was another false concept I had about the disease but my experience has been different. The final visual results, in my experience, have been poor. On the basis of the acute inflammatory process going on in the nerve, shock treatment is highly recommended by some, using foreign protein injection of typhoid or H antigen. Diathermy is often used. In the past few years thiamin chloride in large doses has been used very extensively but probably it does not have the place here that it does in the treatment of the toxic amblyopia of tobacco-alcohol. Removal of all foci we have mentioned, but let it be repeated again, promiscuous and widespread nasal and sinus surgery is looked on with

approval less and less of late. It has been suggested that surgery of foci be based solely on whether the foci itself is of sufficient severity to warrant its removal, rather than on its relation to the concurrent retrobulbar neuritis.

Referring again to the work of Duggan; on the basis of a tissue anoxia he recommends and uses vasodilators, notably sodium nitrate, to overcome this vasospasm and thus facilitate the access of oxygen-containing blood to the tissues, and so eliminate the tissue anoxia. This report on 29 eyes in which the treatment was used compared more than favorably in final visual results with 65 eyes reported treated by therapy other than vasodilators. Recent work by Puntenney at Northwestern consisted of photographs of retinal vessels before and after use of vasodilating and vasoconstricting drugs with an ingenious method of determination of changes in their size after these drugs. He was unable to see any actual dilatation of the retinal vessels after use of drugs classified as vasodilators, among them sodium nitrite. This would appear to cast doubt on the effectiveness of vasodilators, but, in speaking with him recently, I learned that he believes that vasodilators do have a place in the treatment of acute retrobulbar neuritis for the filling of the capillary bed is actually increased by their use.

CASE REPORTS

(1). Mrs. H., age 38. Loss of vision in right eye amounting to 20/400, duration one week. A large arcuate scotoma extending from the normal blind spot area also was made out. Swelling of the disc amounted to 1 diopter, veins over-filled. Physical examination was negative, and on x-ray evidence alone, exenteration of the right ethmoid cells and opening of the sphenoid was performed. There was no apparent effect on the condition, and in spite of protein injections, swelling persisted, central scotoma developed and after five weeks slow regression began, but complete secondary atrophy is now present with one small isolated field of vision remaining, but with exotropia evident.

(2). Mrs. W., age 37. Eighteen months ago an acute retrobulbar attack resolved after the usual treatment, cause undetermined, with vision reduced to 4/200 due to a large central scotoma of 35 degrees. In March, this year, she experienced a sudden loss of vision in the opposite eye, with a paracentral scotoma found on the first day of occurrence of symptoms. Hospitalization and thorough check-up with an internist revealed no new cause for the second episode. Nothing suggesting multiple sclerosis was found. On the third day vision further decreased due to the scotoma now involving the entire central area. Vasodilatation was started and also in an attempt to keep the capillary bed overfilled and saturated with oxygen, five blood transfusions were given under direction of the internist, and inhalation of 100 per cent oxygen for four to six hours daily was used. After three weeks the centrally placed scotoma regressed somewhat with present vision 20/40, a paracentral scotoma still present.

(3). Miss F., age 23. Hazy vision for one week which had not responded to a change of lens. Small central scotoma, no changes in fundus. X-ray examination for sinuses revealed a previously diagnosed condition of hyperostosis frontalis interna on the opposite side to the affected eye, but otherwise negative. Patient overweight, with basal metabolic rate of —15. Tonsils were found to be definitely septic and were removed. Complete physical check-up otherwise negative. Treatment consisted of thyroid medication, thiamin chloride, foreign protein injections. Central scotoma has remained almost constant in character, temporal pallor of disc set in at beginning of sixth year. Vision 20/400.

(4). Miss L., age 17. Pain on movement of left eyeball followed by hazy vision for one week. Large central scotoma, only slight overfilling of veins of retina, possibly some haziness of nasal margin of disc which did not change during entire period of observation. Mild influenza three weeks previously. Physical examination entirely negative; x-ray reported cloudiness of one antrum and ethmoid cells, but clinically they were not active and no surgery was performed. Patient hospitalized to control over-activity of social nature, injections of thiamin chloride 50 mg. daily, diathermy over affected orbit. Central vision cleared after three weeks, final vision 20/15 with small scotoma for color 15 degrees from fixation still present three months after onset.

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Varicose Veins of the Lower Extremities*

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The treatment and care of individuals with varicose veins and the accompanying complications has been a problem all through the history of medicine, and the treatment has been varied. The history of these varied forms of treatment makes an interesting subject in itself. Suffice to say, any physician who has been practicing only a few years has borne witness to the many recent innovations in treatment, and has witnessed the accompanying disappointment when patients have returned with a recurrence of their previous symptoms.

ETIOLOGICAL FACTORS

Varicose veins of the lower extremities are, of course, due to incompetence of the valves in the veins. This can be due to:

1. Stasis due to back pressure
   - A. Pregnancy
   - B. Pelvic tumor (A recent case of ours was due, we felt, to rather large femoral hernia.)
   - C. Back pressure due to sedentary occupations with or without constant recurring lifting. This includes the so-called occupational types as clerks, butchers, barbers, dentists, and many other occupations necessitating standing long hours with little walking. In all of these cases, the long continued back pressure seems to dilate the vessel to the point where the valves are no longer competent. This seems to be more prone to occur in the superficial veins of the leg as we feel the deep veins are more protected by the surrounding muscular support.
2. Varicosities due to direct damage to the valves
   - A. Thrombophlebitis[1]
     - a. Adhesion of the valve to the wall following inflamation
       Recanalization of the thrombus extending through the valves following thrombophlebitis
3. Heredity
4. Other causes: as,
   - A. Congenital cirsoid aneurysm
   - B. Traumatic arteriovenous communication with accompanying increase in venous pressure
   - C. Injury to deep veins

THROMBOPHLEBITIS

This still continues as the etiological factor in the production of many varicosities and ulcers of the leg, but we know too little definitely about the cause of thrombophlebitis. Many factors are suspected. Among these, after a careful survey of the cases of thrombophlebitis that have occurred in the last few years in one of our large hospitals in Oklahoma City, we feel the following obviously may all be factors:

1. Stasis due to inactivity. This factor has been gone into rather carefully and thought to be a dominant one.[3]
2. Anemia
3. Blood dyscrasias
4. Trauma

We have blocked the sympathetic[2] nerve supply with novocain in sixteen cases of thrombophlebitis of the leg, and have been able to follow most of these cases. The earlier one can perform this procedure following the onset of the thrombophlebitis, the better are the results obtained. It seems to be of very little or no value other than the relief of pain if the condition has existed any great length of time. We mention this treatment of thrombophlebitis in this paper because anything that can lessen the damage to the valves in the veins will be of value in the prevention of the future development of varicose veins. After the patient is out of bed, the leg should be carefully supported and an edema never allowed to develop. In this manner we usually seem to be able to prevent the development of the familiar picture of elephantiasis that often results following a severe case of thrombophlebitis. We have one fairly recent case on hand at the present time who did not report for any medical attention until eight weeks following the onset of the thrombophlebitis. Having this patient and other similar cases in our office has furnished a constant stimulus in endeavoring to prevent the development of similar conditions in these cases.

There was a time when a history of thrombophlebitis previously having existed was a distinct contraindication to any subsequent ligation. At the present time it should certainly be a cause for very careful study before ligation is done, and we have set an

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arbitrary time limit of no ligation for at least twelve months following the subsidence of acute thrombophlebitis. Usually we wait longer. We have been very cautious about the use of sclerosing agents in this particular type of case.

We have gone into the etiological factors because with a conception of the causes more intelligent steps can be taken in the prophylaxis of varicose veins with their accompanying painful and disabling ulcers that are prone to occur.

PROPHYLAXIS DURING PREGNANCY

Any patient who develops varicosities during pregnancy we feel should have pressure bandages on the legs from the tip of the toes to just below the knee. An elastic stocking will serve this purpose, but it has been our experience that an elastic bandage properly applied (and the patient can be taught to apply these) is better than an elastic stocking. The elastic stocking is excellent if properly fitted when it is new, but tends to lose its elasticity with time. We do not feel that either injection or ligation is indicated in a pregnant patient. When the veins are so protected and are not allowed to remain dilated and damage the valves, one will be agreeably surprised at the condition of the leg after the pregnancy is terminated.

Before treatment is instituted in any leg, that individual should have:

1. A complete systematic history and examination
2. Before any veins in a leg are ligated, a careful study of the superficial and deep veins must be instituted as to existing varicosities, and the patency and competency of the communicating veins and their valves. We must prove that the deep veins are patent. The Trendelenburg test can be used along with Pertes test. Also, in the majority of the cases, palpation along with percussion will be of use in examining the superficial veins in the thigh. Numerous tests have been advocated and have their place depending upon the type of patient being examined and the choice of the examiner.

At one time a few years ago, there were many advocates of the so-called stripping operation; whereby, the long saphenous vein from well up into the thigh down into the calf was completely stripped out through multiple small incisions. One had only to see one severe infection following this type of operation to lose most of his enthusiasm for this type of treatment.

Then came the wave of enthusiasm for the injection treatment of varicosities without ligation. Thousands of injections were reported with wonderful results, but after approximately two years one began to see rather high percentage of recurrences. It is now obvious that sclerosing the lower segments of a saphenous vein is not physiologically sound and compatable with a permanent cure in a high percentage of cases. The last few years, during which time we have been attempting to evaluate our results, we have arrived at the conclusion that when the long saphenous vein has varicosities throughout its l e n g t h, the treatment of choice is high ligation along with ligation of the collateral circulation of the saphenous system of veins. In the majority of cases, a retrograde injection of a sclerosing agent is done at the time of ligation.

We seldom use more than 5 cc of a sclerosing agent in a leg at any one time. If a patient has had previous injection treatment, we endeavor to use a different solution at the time that we treat the patient as reactions occasionally are observed from the sclerosing agent. The only reaction that we personally have witnessed has been an occasional hyperpyrexia that we feel was due to the recurrent use of the same sclerosing agent.

When high ligation is done, often a supplementary ligation is necessary just distal to any communicating vein that has a noncompetent valve or the varicosities will still exist below that point in the leg. We inform our cases that a recheck of the leg will be necessary from time to time for we know that any time a valve in a communicating vessel becomes incompetent we will soon have a recurrent varicosity.

VARICOSITY INVOLVING THE SHORT SAPHENOUS VEIN

Occasionally varicosities below the knee will involve the short saphenous vein. It is our impression that not over 2 to 4 per cent of the legs we have seen have sufficient varicosities of this vein to warrant treatment. As this vein empties into the popliteal vein, it is safer to inject varicosities here with preliminary ligation proximal to the point of injection.

During the past year, a section of the saphenous vein in each case operated has been sent to the laboratory for microscopic study. At the present time we are not prepared to make any definite conclusions. In almost every case, however, we have had a report of definite changes in the medial coat. Many of them have shown degenerative changes in the intima of the vessel. This, it must be remembered, is high in the involved vessel, just distal to the junction with the femoral vein. At this date, we are not prepared to state the meaning of these changes, but intend to continue with our studies in an effort to see if the changes have any significance.

CARE OF VARICOSE ULCERS: The ulcer from varicosities of the long saphenous vein,

of course, occurs on the medial aspect of the ankle usually just above the internal malleolus. At times, in severe cases, an accompanying reddish bronzing appearance of the skin exists in an encircling area about the ankle. There may even be other broken down areas or extensive ulcerations due to the long continued malnutrition of these parts. We feel that in addition to malnutrition due to stasis that the condition must be thought of as partially a deficiency. It has been reported that the administration of B1 was of value in this type of case.[4] During the last year, we have seen a number of individuals with varicosities in one leg that made one think of subclinical pellagra. We have given some of these early cases nicotinic acid along with our other treatment, and the patients almost invariably reported not only improvement of the leg but improvement of their general skin texture and general well being. We mention the use of nicotinic acid at this time, and hope later on to give more definite reports as to its value. We have been using, of course, the nicotinic amide lately because fewer patients report reaction than from the nicotinic acid. We have had an occasional reaction occur with the amide.

Usually in the treatment of the infected varicose ulcer, a simple pressure elastic bandage worn over a sufficient length of time will temporarily heal the ulcer. In the usual case, it does not seem to make much difference what type of local medication is used so long as it is bland. In the past, we have tried almost everything from a simple dry piece of gauze to numerous medications. In case the ulcer is intractable, activated zinc peroxide paste applied to the ulcer seems to be of more value than any other application we have used. We have recently found a 5 per cent sulfathiazole dressing to be valuable medication in selected cases. We use the adhesive elastic bandage of which there are several excellent products on the market. The bandage, of course, should be firmly applied from the tip of the toes to just below the knee, and should be applied with even tension.

CONCLUSIONS

1. We feel that varicose veins of the leg involving the long saphenous system are best treated in the usual case by high thorough ligation of the saphenous and collateral veins combined with retrograde injections of a sclerosing solution preferably in a small bulk.

2. We urge that more attention be given to the prophylaxis of this painful disabling condition.

3. We feel that a deficiency factor exists in many of these cases, and that nicotinic acid is only one of other deficiency factors.

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The Clinical Significance of Delayed Osseous Development*

BEN H. NICHOLSON, M. D.
OKLAHOMA CITY, OKLAHOMA

That part of the practice of pediatrics which is devoted to the management of disease entities that have a more or less definite beginning and a definite end is relatively easy. The indecision in our own minds tends to vanish when we have a name for it. We have something that we can get our teeth into and we can look it up and see what others' experience with that disease has been.

A rather large part of the pediatrician's work with older children is concerned with problems which have no names and which defy description. It is no simple task to determine which of the vague complaints are figments of the anxious mother's imagination and which are real. The determined woman who plants herself in your office to tell you about Junior's poor appetite, his craving for sweets, his abdominal pain, the cramps in his legs, his frequent colds, his eye-batting, the pain in his heart, his constipation, his coated tongue, his bad breath,

*Read before the Section on Obstetrics and Pediatrics, Annual Session, Oklahoma State Medical Association, May 20, 1941, in Oklahoma City.

his restlessness at night, his indifferent work at school, because his examination is without significant positive findings, gets for her pains some advice about his diet and habits and a bottle of capsules containing as many of the vitamins as are put up together in one pill.

It is unfortunate that this is so, but it is unavoidable, for the satisfactory examination of one such patient would require many hours and the mother has saved it all up for months and expects to get everything settled for the price of one office call.

Perhaps some day a short cut to such an evaluation will be available, but this seems unlikely.

There can, I think, be taken out of this group for definite classification the child whose development is retarded and who shows delayed maturation of the skeletal system according to the standards of Todd, set forth in his "Atlas of Skeletal Maturation." The following case resumes illustrate this type of child:

D. P., a ten year old boy, was seen in July, 1939, because he was doing very poor work in school. He was in the fourth grade and was hanging on with all the effort his parents could muster. He was awkward, handled himself poorly, and had difficulty playing with other children for that reason. He had frequent attacks of some sort of upset stomach, associated with a feeling of weakness. Persistent constipation necessitated frequent laxatives.

Except for his general build and several furuncles his examination was unenlightening. He had a short trunk with long legs and knock knees, and his joints were very loose. His height and weight were average for his age, but he had a spread of two and one-half years between his skeletal maturation and his chronologic age. One-half grain of thyroid daily made a different youngster out of him and when last heard from he was doing very well in school and had a much better attitude toward his surroundings.

H. C., a boy of 3 years and 9 months, was seen in July, 1939, because of slow development. He was slow sitting alone and did not walk until he was eighteen months old. He had been slow about everything and had just finished cutting his second molars when he came for examination.

He talked so poorly that only a few words could be understood.

On examination the boy's awkwardness was obvious. He handled himself about as well as one would expect the average eighteen months' old baby to. He ate with his right hand, threw a ball with his left, and kicked with his right foot. Apparently neither side of his brain was as yet dominant. Examination of his left wrist and hand by X-ray showed a maturation age of approximately two years, which is a spread of a year and nine months.

He was started on one-fourth grain of thyroid daily without much benefit and the dose was gradually increased to one and one-half grains daily with very marked improvement and progressive development. He now lives in Tulsa and is under the care of Dr. Graham who has been very gratified with his progress.

G. D., a seven year old boy, was first seen in November, 1940, because he could not learn in school and because he was very awkward and his speech unintelligible. His height and weight were average. His skin was dry and coarse, and his eyes dull, and he was definitely not interested. His movements were spastic and his whole body seemed rigid. His maturation age was three years and nine months, which is a spread of about three and one-half years. Thyroid administration has resulted in considerable improvement but this boy has a long way to go. His mother, however, is very pleased with his progress to date.

L. W., a girl of seven years, was first seen in January, 1941, because of chronic constipation. She had since infancy been constipated and had regularly been given first one kind of laxative and then another. The child had been very cross, fretful and restless, and not very interested in anything.

She was of average weight and height for her age and a barium enema failed to show any suggestion of a megacolon. Her maturation age was only four years, which is a spread of three years, and she was put on small doses of thyroid daily. The mother was instructed about her habits and a month later she reported that the child was completely regulated and a much happier individual.

The last patient, a boy of six years, had been under observation since birth. Since about the age of two years he had been a cross for his parents to bear. He was not interested in what they had to say about anything. At the age of three someone had to get him down from the top of the windmill. At the least opportunity he had gotten into the lot with an ill-tempered bull. He had always been one of those kids who had to be watched lest he get seriously injured.

The situation was no better when he went to school. He wouldn't try to concentrate on anything and it was more or less hopeless to try to do anything with the other children when he was present.

Physically he had done beautifully all the time. His father married late in life and

didn't want to be bothered with the child, and his mother was constantly trying to keep the child from annoying or upsetting his father.

I considered the whole business a training problem and I advised them to seek child-guidance help that I didn't feel qualified to give. This, the fatther, who has been a little antagonistic all the time, refused to do. In desperation, I had an x-ray of his hand and found a spread of two years between his maturation and chronologic age.

On a quarter of a grain of thyroid a day the boy changed remarkably. He is no longer so fidgety and jumpy. He can sit down in a chair for a while and relax. He seems much more able to concentrate and is not constantly flitting from one thing to another. The difficulty was, and still is, largely one of behavior but the developmental factor is being taken care of and I think that as time goes on I can cope with the behavior aspect of it.

The children all represent hopeless situations in which the relationships at home and at school are becoming more and more strained, and less and less harmonious. The surprising thing to me is that these children's behavior is about what one would expect of a child whose chronologic age is equal to his maturation age. In other words, a child of seven who has matured to the age of four cannot be expected to act and think as a normal child of seven does. A case in point is one of my own children who talks and behaves as does his sister, who is two years younger, except that he is much lazier and much less interested in things around him.

He is quite a behavior problem but his skeletal age is correspondingly delayed and he has seemed more nearly normal taking small doses of thyroid. His mother and I are better able to cope with the behavior aspect of the situation.

My experience in the interpretation of the plates is limited and I have had to go through the laborious process of studying them bone by bone, with Todd's Atlas as a guide. While such a process is tedious, I believe that one who takes the time to study the Atlas can be fairly accurate.

It is obvious that a single assessment of a child's maturation level can only tell what he has done in the past and not what he is doing at the present. The clinical picture must determine the procedure to be followed and then re-assessment at intervals of six months will give a more concrete guide to his progress.

The rapid improvement in the child's behavior would seem to indicate that thyroid is needed for other reasons than its growth-promoting factors. The basal metabolic rate has not been a satisfactory procedure in small children. Only one of these children had definite clinical evidence of hypothyroidism and none of the ones whom I have followed has had a low body temperature. Cholesteral determinations have not been done. The amount of thyroid must be largely determined by the child's reaction to the drug. It is, I think, important to use the same preparation, for the potency of different preparations varies considerably.

With few exceptions all the patients whom I have placed in this category have been in the prepubescent period and have therefore shown no delay in the development of sexual characteristics. In general, thyroid is said to be dominant in growth promotion and the anterior lobe of the hypothysis in maturation. So far, I have hesitated to use pituitary preparations in these small children lest maturation be promoted too rapidly. Perhaps as I learn more, the indications for their use will be clearer to me.

I realize the complete worthlessness of a discussion of this character from a scientific point of view. It consists largely of my own impressions of patients, backed by my own inexperienced interpretations of their skeletal development, and my own interpretations of their progress colored more or less by tne parents' impressions. I cannot draw any conclusions but I believe that in my own work I have succeeded in isolating this relatively hopeless group from those who are ordinarily sentenced to vitamin B complex.

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EDITORIALS

THE MEDICAL OFFICER "SOUNDS OFF"

Quoting from an article appearing in the Daily Oklahoman of Friday, May 9, 1941, under the date line of Del Monte, Cal.—

Lieut. Col. John H. Schaefer, M. C., United States Army, addressing the California State Medical Association says—"Too many young doctors holding Reserve Commissions are attempting to evade their duty by seeking exemptions from army service in the present emergency. The time has come to call a spade a spade. The number of such slackers is too numerous."

It is poor taste for an army officer to try to dictate to the medical profession its responsibility. Every doctor has his own problem to solve and should do what his conscience dictates to be the right thing and when he has made the decision, the calling of mean names will never improve the situation.

It is unfortunately true that we do not all see "eye to eye" in this present emergency. We must all conduct ourselves as professional men, even though the courts in Washington have said we are not, but it is hard to expect physicians to make 100 per cent sacrifice while the members of the other "trades" are holding up production and demanding more pay.

By army regulations a First Lieutenant who is married, has dependants and no source of income except from his profession, may resign his commission. Some physicians, after deliberate consideration, have decided to accept this regulation and if the regulation is a good one, he can hardly be criticized for so doing. Should such action brand a physician a slacker? If so, the regulation is bad.

If a doctor prefers to register under the Selective Service Act it is entirely his personal affair as he is doing the very thing the Government has planned for him to do and is not subject to any criticism or slanderous names from any Government Agency.

Let each doctor search his heart, decide as to his course of action, then act accordingly.

Now let Government Agencies try some better manner than nasty names to develop a cooperative spirit and unanimity of action from the Medical Profession.

Give and then give more to this program of preparedness, but let this be according to the dictates of your own conscience and your own patriotism, not because some Medical Officer of the United States Army proposes to classify you as a slacker.

PREPARE FOR WAR IN TIME OF PEACE

In the Lancet, January 4, 1941, under the title "A Wartime Pharmacopoeia" M. H. Pappworth discusses the needless and heedless prescribing of drugs which (1) normally come from parts of the world not now readily accessible to England. Examples — potassium salts, squills and liquorice. (2) Imported drugs which require valuable shipping space and could be omitted from prescriptions without serious therapeutic sacrifice. Examples — balsam of tolue, buchu, cubebs and senega. (3) Drugs needed for the manufacture of war weapons and lubricants, such as aluminum and magnesium salts, glycerin, liquid parrafin and castor oil.

The author says: "The list of substances covered by these three categories is enormous. But it is imperative that their use should be restricted and by helping in this way doctors will make a valuable contribution to our war effort. Now is the time for each hospital or hospital-group to compile a war-time pharmacopoeia which will pay due regard to these considerations. The following formulae and comments may prove useful to anybody engaged in this task. The main aims have been to avoid drugs within the three categories described above; to remember the cost of ingredients; and to combine simplicity with maximum therapeutic efficacy."

Many specimen prescriptions are cited for the purpose of recognizing specific needs, avoiding wasteful prescribing and substituting certain drugs for those useful in the exigencies of war or difficult to obtain.

It is indicated that this study engaged the cooperation of the laboratory directors of large chemical manufacturers. It would not be amiss for the American Medical Association, the large chemical and pharmaceutical manufacturers to anticipate our own needs and limitations in this field in case war continues to condition our way of life.

HOSPITAL BEDS IN OKLAHOMA

The Journal of the American Medical Association, March 15, 1941, is designated as the Hospital Number. Approximately 100 pages are devoted to a statistical study of hospital service in the United States. This study represents a great deal of work and serves a valuable purpose.

The figures on Oklahoma indicate that we have a grand total of 16,071 beds. Of these,

1,970 are federal; 10,120 are State; 141 are county; 138 are city; 20 are city-county; 927 are church related; 707 are non-profit associations; 1,436 individual and partnership; 612 corporations. Of the grand total, 12,389, or 77.08 per cent are tax supported. Eight thousand six-hundred thirty-four of the tax-supported beds are for nervous and mental diseases and 951 are for tuberculosis.

After allowing for certain differences usually accounted for through variations in the distribution of federal beds, it is astonishing how uniform is the middle west's distribution of various bed quotas in the states, with populations comparable to Oklahoma.

Those who may be disturbed by the large percentage of tax supported hospitals are reminded that one of the glories of the Arabic civilization, particularly from the 6th to 13th centuries, was the building and maintenance of hospitals under philanthropic foundations, bequests and royal edicts. Such institutions were to be found in Bagdad, Damascus, Antioch, Jerusalem, Mecca, Alexandria, Cairo and many other cities under Arabic control.

The following from Neuburger (1) serves as an example:

"We are best informed concerning the hospitals of Egypt. The first, founded and richly endowed by Ibn Tulun, was excellently equipped, while we have knowledge of others in Misr (founded 597), etc. The largest and best appointed was the Mansur Hospital in Cairo, which was erected at the edict of the Al-Mansur Gilafun in 1283 at an enormous expense and which drew a large income from the landed property assigned to it. With the hospital were associated a mosque, an academy, a library and an orphanage."

Makrizi is quoted to show the spacious appointments for male and female and for every class of patient. The quotation closes with this statement: "The head-physician had an apartment to himself wherein he delivered medical lectures. The number of patients was unlimited, every sick or poor person who came found admittance, nor was the duration of his stay restricted, and even those who were sick at home were supplied with every necessity."

Neuburger adds: "In later times this hospital was much extended and improved. The nursing was admirable and no stint was made of drugs and appliances; each patient was provided with means upon leaving so that he should not require immediately to undertake heavy work. The Arabs in Bagdad, Cairo and Damascus had special eye hospitals and lunatic asylums. As regards the latter great credit is due to the Arabs in that the lunatics received careful and kindly attention in the asylums, not, as was so long the case in the West, being treated as criminals."—L.J.M.

(1) History of Medicine. Max Neuburger, Vol. 1, Oxford Medical Publications. 1910. Pages 377-378.

RIGHT: Hess Infant incubator. ABOVE: Hess incubator with Hess infant oxygen therapy unit in position for oxygen administration.

HESS INFANT EQUIPMENT

For the past twenty-five years, the Hess incubator has proved its value in the care and treatment of the prematurely-born or otherwise frail infant. Extreme simplicity of operation insures excellent results.

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SCURVY first attracted attention when men began to make long sea voyages. The 16th century explorer, Jacques Cartier, described it and told how it was cured by having his men drink an infusion of the leaves and bark of the Ameda tree. Nevertheless it remained a serious problem in the British Navy until the middle of the 18th century when James Lind wrote his *Treatise on Scurvy.* Through Lind's observations and influence it was virtually eliminated as a plague among British sailors by providing them with lemons or other citrus fruit.

A forward step was made in 1907 by Holst and Frölich who found that the guinea pig could be used experimentally for the study of scurvy. It was not until 1932, however, that the isolation of hexuronic (ascorbic) acid was announced almost simultaneously by Waugh and King in the United States and by Svirbely and Szent-Györgyi in Hungary. First obtained from the adrenal cortex of animals and from cabbage leaves, it has since been found widely in plant and animal tissues.

The story of the conquest of scurvy presents a dramatic page in medical history, yet it may be but a prelude to a still more fascinating and significant drama. The isolation of ascorbic acid opens the door a little further for investigators studying the physiology and metabolism of the living cell.

Ascorbic Acid (Upjohn) is available from prescription pharmacists in the following dosages: scored compressed tablets of 15, 25, 50, and 100 mg., in bottles of 40, 100, 500, and 1000.

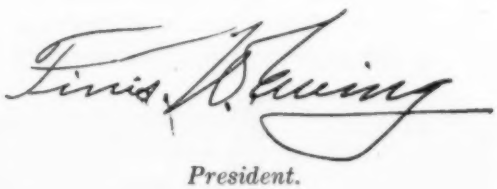
• THE PRESIDENT'S PAGE •

In reviewing American Medicine, we must be impressed by the progress made during the present century. The accomplishments are so outstanding that it would seem incredible to those who are so familiar with the advancement made, that all who have benefitted so greatly as a result of this progress would not acknowledge the great benefits to humanity, and that they almost as a unit would not lend every possible aid towards a continuation of this program. There can no longer be made the charge that American Medicine is narrow, or slow to accept improvements in practice, for there is no science or art that has seen the beneficial changes and improved developments, in this or any other age, that American Medicine has made.

We not only have forged far ahead of any other civilized country, but have kept up with our own national progress and have been the pacemaker for the betterment of the American way of life. American Medicine has demonstrated that it is fully competent to meet successfully every emergency and has made America the healthiest of all nations. Upon this premise, we have permitted ourselves to be lulled into thinking that nothing could happen to American Medicine.

Now we find that there are those who, from misinformation or promoted by selfish motives, would abruptly make violent and destructive changes. These individuals, "some within our own ranks" who apparently have as their model those principles which have caused the deterioration of medicine in Europe, have either placed a most peculiar interpretation on their history, have a poor regard for their fellow man, or are wholly selfish.

The time is here for our profession to conduct a militant crusade, to preserve the accomplishments already made, and to secure at all hazards a continuation of the ideals of American Medicine.



President.

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ASSOCIATION ACTIVITIES

Bill for Annual Registration of Physicians Passes

On May 10, the Eighteenth Session of the Oklahoma Legislature enacted into law House Bill 560.

This measure, commonly known as the Annual Registration Act, requires that all physicians and surgeons register their licenses with the Secretary-Treasurer of the State Board of Medical Examiners on or before June 10 of this year, and annually thereafter on or before the same date.

The enactment of this legislation has long been of vital need to ascertain properly the names and addresses of all physicians and surgeons who are at the present date legally entitled to practice medicine and surgery in Oklahoma.

Since there has not been a re-registration of licenses for the practice of medicine and surgery since 1908, it has been impossible for the Board of Examiners to record properly deaths and removals from the state, and to ascertain proper identification of present holders of licenses. Thousands of names of physicians and surgeons, some written in illegible longhand and many without the full name, are at present carried on the records of the Board.

Should the national emergency have caused the military forces to request of the Board the names and locations of all doctors within the state under the present existing circumstances, it would have been impossible to fulfill the request.

In addition to these conditions existing in the practice of medicine in Oklahoma, the Medical Board is constantly being requested by both the members of the profession and the laity to take steps toward alleviating in certain communities alleged violations of the Medical Practice Act. The Board has always been in sympathy with these requests, but until the passage of this bill, was restrained from cooperating because of the lack of funds for such proceedings.

The law as enacted does not require any re-examination, and all physicians and surgeons who are in possession of a bona fide, legal license to practice in Oklahoma will be issued a renewal certificate.

Before the passage of this Act, the laws of Oklahoma provided for annual renewal registration for all of the sixteen statutory professions, except the professions of accountancy, medicine and surgery. These professions and their annual renewal fees are as follows:

Architects	$10.00
Attorneys	5.00
Barbers	3.00
Chirodody	5.00
Chiropractic	2.00
Cosmetology	1.00 to 25.00
Dentistry	2.00 to 5.00
Pharmacy	3.00
Embalming	3.00
Engineering	5.00
Optometry	5.00
Osteopathy	2.00
Nurses	1.00
Veterinarians	3.00

Since the enactment of this legislation is of vital importance to members of the medical profession, every physician and surgeon should study carefully the contents of the bill which is hereby printed in toto :

House Bill No. 560—By Whiteneck and Weaver of the House, and Ritzhaupt of the Senate.

An Act relating to the practice of medicine and surgery in Oklahoma and to the powers and duties of the Board of Medical Examiners; requiring physicians and surgeons to secure annual renewal certificates of registration and fixing fees therefor; fixing penalties; providing manner and purposes of expenditure of the depository fund of said Board; and declaring an emergency.

Be it enacted by the people of the State of Oklahoma:

SECTION 1. Each person holding a license or certificate issued by the Board of Medical Examiners of the State of Oklahoma authorizing him to practice medicine and surgery in Oklahoma, who desires to continue to so practice after the expiration of the fiscal year ending June 30, 1941, shall, on or before June 10, 1941, and annually on or before June 10 of each year thereafter, apply to the Secretary-Treasurer of said Board, on forms furnished thereby, for a Renewal Certificate of Registration entitling him to practice medicine and surgery in Oklahoma during the next ensuing fiscal year. Each such application shall be accompanied by a Three Dollar ($3.00) renewal fee. Upon receipt of such an application and fee it shall be the duty of the Secretary-Treasurer, on or before June 25 of the year the application and fee are so received, to issue to the applicant a Renewal Certificate of Registration for the next ensuing fiscal year, which certificate will entitle the person to whom it is issued to practice medicine and surgery in Oklahoma during said fiscal year. Provided; that no such Certificate of Registration shall be required of a person for the fiscal year in which he received, either on examination or by reciprocity, his original license or certificate to practice medicine and surgery in Oklahoma.

SECTION 2. Any person practicing medicine and surgery in Oklahoma as defined by Section 4635, Oklahoma Statutes 1931, without having the legal possession of a current Renewal Certificate of Registration, shall be guilty of a misdemeanor and upon conviction be punished by a fine of not less than Twenty-five Dollars ($25.00) nor more than Two Hundred Dollars ($200.00), and such practice shall constitute grounds for the revocation or suspension of his license or certificate to practice medicine and surgery in this State.

SECTION 3. All renewal fees paid to the Secretary-Treasurer of the Board of Medical Examiners under the provisions of this Act shall be deposited by him with the State Treasurer, who shall place the same in the regular depository fund of the Board. Said fund, less the ten per cent (10%) gross fees paid into the General Fund of the State under the provisions of Chapter 88, Oklahoma Session Laws 1933, shall be expended in the manner and for the purposes now provided by law, and in paying a salary of not to exceed Fifty Dollars ($50.00) per month to the Secretary-Treasurer for performing the duties enjoined on him by this Act, in purchasing necessary blanks, records and equipment, in securing necessary clerical and stenographic assistance, and in employing an attorney to investigate alleged violations of the Medical Practice Act of Oklahoma and to assist authorized State and county officers in prosecuting or restraining violations of said Act. Provided that said expenditures shall not be a charge against the State, but that same shall be paid solely from the Board's said depository fund.

SECTION 4. It being immediately necessary for the preservation of the public peace, health and safety, an emergency is hereby declared to exist, by reason whereof

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this Act shall take effect and be in full force from and after its passage and approval.

In explanation of the important points of the bill, your attention is directed to the provisions of the bill in the following respect:

Section 1.

Section 1 provides that every person holding a license or certificate issued by the Board of Medical Examiners of the State of Oklahoma authorizing him to practice medicine and surgery and who desires to continue to practice after June 30, 1941, MUST APPLY to the Secretary-Treasurer of the Board, (J. D. Osborn, M.D., Frederick), for the proper forms for securing the renewal certificate on or before JUNE 10, 1941. Each application upon being sent to the Board must be accompanied by a renewal fee of $3.00.

Upon the receipt of the application and fee, the Secretary-Treasrer must issue a renewal certificate to the applicant on or before June 25.

Section 1 further provides that it shall not be necessary for a person, who has received either by examination or reciprocity, his first and original license, to secure a renewal certificate for that particular fiscal year in which the license was issued.

Section 2.

SECTION 2 PROVIDES THAT ANY PERSON WHO PRACTICES MEDICINE AND SURGERY IN OKLAHOMA AFTER JUNE 30, 1941, WITHOUT HAVING COMPLIED WITH THE CONTENTS OF THE ACT SHALL BE GUILTY OF A MISDEMEANOR, AND SUCH FAILURE SHALL CONSTITUTE GROUNDS FOR THE REVOCATION OR SUSPENSION OF HIS LICENSE.

Section 3.

Section 3 provides for the depositing of the fees collected and the expenditure of the same.

In addition to the expenditure of the fees for the routine operation of the law, said moneys may also be expended for the purpose of employing an attorney to investigate alleged violations of the Medical Practice Act and to assist authorized state and county officers in prosecuting or restraining violations of the same.

Section 4.

Section 4 constitutes the emergency caluse.

All members of the profession are cautioned to observe that the law places the responsibility for the securing of the annual renewal certificate upon the applicant, and that the renewal certificate must be secured on or before JUNE 10, 1941, should they desire to continue their present license in force after the expiration of the fiscal year ending JUNE 30, 1941.

All members of the Association are likewise advised that the provisions of this law are in no way connected with the Oklahoma State Medical Association and that all correspondence and requests for proper forms must be made to J. D. Osborn, M. D., Secretary-Treasurer of the State Board of Medical Examiners, Frederick, Oklahoma.

Samples For Britain Discouraged

The following release has been received at the office of the Association:

Dear Doctor:

We have been asked by a number of advertisers to help discourage a movement to collect physicians' samples for British Relief.

By publishing the following news item you can ingratiate your Journal with these advertisers.

Very truly yours,
Cooperative Medical Advertising Bureau
American Medical Association

As much as we individually might be in sympathy with the "Bundles for Britain" movement, one recent phase of it hardly has our approval.

At several points in the country there has been a movement to collect the samples left by pharmaceutical detail men in physicians' offices and include them in the shipments for British Relief. This is an expensive and uncontrolled way of supplying pharmaceutical products.

Most all of the pharmaceutical manufacturers have individually donated supplies with vitamin capsules and other needed pharmaceutical products to the British Relief at no charge.

The packaging of a sample increases the cost and if these samples are collected and sent to Britain, then the purpose for which they were intended, that is, for the use of physicians, is not accomplished, and the heterogenous material that reaches British Relief probably would have little value. Many samples left physicians would be dangerous if used indiscriminately without the advice of a physician.

In some cases individual City and County Medical Societies have been asked to cooperate with the collection of these samples. It is our opinion that such cooperation should be refused for the obvious reasons stated.

Lederle to Open State Depot

Lederle Laboratories, Inc., New York City, announce the opening, June 1, in Oklahoma City of a full-time, completely stocked depot of biological, pharmaceutical and allergenics preparations.

The first of its kind to be established in Oklahoma, the depot will be located at 1114 North Walker. Its aim will be to increase Lederle service to every drug store by giving rapid distribution to all points in the state.

A. F. Buckley will manage the depot, with Miss Edna Colbaugh as trained secretary, and Paul Snelson and Louis Ebeling as traveling representatives.

Specialists' Directory Asks for Biographies

Specialists eligible for listing in the forthcoming second edition of the Directory of Medical Specialists are urged to fill in and return promptly the questionnaires for biographic data now being mailed out by the publication office.

This Directory is the official publication of the Advisory Board for Medical Specialties, issued every two years, and listings are limited to those formally certified by and of the fifteen American Boards examining in the medical specialties. There is no charge for such listings.

The second edition is now being prepared, and will be ready for distribution early in February 1942, with biographic, geographic, and alphabetic listings of all diplomates certified to January 1, 1942. It will include approximately 18,000 names.

The Directing Editor is Paul Titus, M. D., 1015 Highland Building, Pittsburgh, Pennsylvania, and the secretaries of the fifteen American Boards constitute the Editorial Board.

Secretions Study Group Elects Dr. Turner To New Office

Dr. Henry H. Turner, retiring president of the Association, assumed office in another medical association this month, when he was elected secretary-treasurer of the Association for the Study of Internal Secretions at a meeting May 2 and 3 in Atlantic City, N. J.

Doctor Turner is a past vice-president of the group, and has served as a member of its Council for several years.

The Association is an international organization made up of about 800 physicians interested in that particular field of medicine.

Opportunity for Practice

Anyone interested in an opportunity to engage in practice in a town of about 500 people with good surrounding oil territory, communicate with Mr. H. R. Higdon of Avant, Okla.

KARO ADVANTAGES IN INFANT FEEDING

1. ***Minimum Fermentation*** —"The dextrin is not irritating to mucous membranes, easily digested without undue fermentation in the intestinal tract, converted into maltose and finally into dextrose before absorption. The amounts of maltose and dextrose, present or formed, and of cane sugar are rarely sufficient to produce irritation or fermentation."

Kugelmass: "Newer Nutrition in Pediatric Practice."
J. B. Lippincott Co., Philadelphia, 1940, p. 334.

2. ***Maximum Assimilation*** — Metabolic studies of experimental animals may have valuable implications for infant nutrition. For example, "The relative assimilation values of mixed sugars per 100 gms. of body weight are as follows: Dextrin and maltose 1.32; dextrin and dextrose 1.32; sucrose 0.76; fructose 0.50; lactose 0.16 and galactose 0.10."

Ariyama & Takahasi, Biochemische,
Zeitschrift, vol. 216, p. 269, 1929.

3. ***Ready Utilization*** —"Karo syrup may be fed in large amounts without danger and is, at the same time, readily utilized. In our experience, it has been the most satisfactory form of carbohydrate for the feeding of normal and most sick infants."

Marriott: "Infant Nutrition."
C. V. Mosby Co., St. Louis, 1930, p. 45.

THE CHEMICAL COMPOSITION OF KARO IN GLASS AND IN TINS IS IDENTICAL

Dextrins	37%
Maltose	18%
Dextrose	12%
Sucrose	4%
Invert Sugar	3%
Minerals	0.6%
Moisture	25%

1 oz. volume	40 grams 120 cals.
1 oz. wt	28 grams 90 cals.
1 teaspoon	20 cals.
1 tablespoon	60 cals.

(Karo—Blue Label)

CORN PRODUCTS SALES COMPANY • 17 BATTERY PLACE, NEW YORK CITY

Thirty-Seven State Doctors Called to Military Service

Thirty-seven more doctors of Oklahoma have answered the nation's call to military duties while the orders of eight more who received notice to enter training earlier in the year have been revoked. These names were taken from the Journal of the American Medical Association.

Adams, Richard Martin, 1st Lieut., Tulsa, Camp Wallace, Texas.

Akins, Jack Odie, 1st Lieut., Tulsa, Fort Sam Houston, Texas.

Atkins, Paul N., Jr., 1st Lieut., Muskogee, 52nd Signal Battalion, Fort Sam Houston, Texas.

Bergener, Karl L., 1st Lieut., Tulsa, 25th Infantry, Fort Huachuca, Arizona.

Bolton, Vernon L., 1st Lieut., Oklahoma City, Station Hospital, Fort Sam Houston, Texas.

Box, Otho, N., Jr., 1st Lieut., Grandfield, 36th Division, Camp Bowie, Texas.

Bungardt, Alfred Hiller, Jr., 1st Lieut., Oklahoma City, Station Hospital, Camp Barkeley, Texas.

Carson, John M., 1st Lieut., Shawnee, 36th Division, Camp Bowie, Texas.

Cox, Arlo K., 1st Lieut., Watonga, 36th Division, Camp Bowie, Texas.

Crane, Francis S., 1st Lieut., Wilburton, 1st Cavalry, Fort Bliss, Texas.

Curry, John Russell, 1st Lieut., Blackwell, Camp Barkeley, Texas.

Donovan, Mark Hamilton, 1st Lieut., Oklahoma City, Station Hospital, Fort Sill.

Downing, Gerald G., 1st Lieut., Lawton, Station Hospital, Fort Sill.

Duewell, Rudolph Henry, 1st Lieut., Durant, Station Hospital, Fort Sill.

Etter, Forrest Stayton, Major, Bartlesville, Station Hospital, Fort Sill.

Evans, Alfred, 1st Lieut., Perry, Camp Barkeley, Texas.

Hyde, Wm. A., 1st Lieut., Durant, Station Hospital, Camp Barkeley, Texas.

Johnston, Leonidas A., 1st Lieut., Holdenville, Station Hospital, Fort Sam Houston, Texas.

Kennedy, Louis James, 1st Lieut., Clinton, Station Hospital, Fort Sill, Okla.

Kupka, John F., 1st Lieut., Haskell, Camp Barkeley, Texas.

Lindsey, Ray Harvey, 1st Lieut., Pauls Valley, Camp Wallace, Texas.

McClure, Harold M., 1st Lieut., Chickasha, Station Hospital, Fort Sill.

McCurdy, William C., 1st Lieut., Purcell, 2nd Medical Battalion, Fort Sam Houston, Texas.

Melvin, James H., Jr., 1st Lieut., Oklahoma City, 14th Medical Regiment, Camp Bowie, Texas.

Newlin, William H., 1st Lieut., Sallisaw, Camp Barkeley, Texas.

Oxman, Bertram Sidney, 1st Lieut., Wetumpka, Fort Bliss, Texas.

Perry, Fred T., 1st Lieut., Healdton, Camp Barkeley, Texas.

Phelps, Malcolm E., 1st Lieut., El Reno, Camp Barkeley, Texas.

Smith, Donald Hector, 1st Lieut., Fairview, Station Hospital, Fort Bliss, Texas.

Strecker, William E., 1st Lieut., Oklahoma City, Station Hospital, Fort Sill.

Stough, Austin R., 1st Lieut., McAlester, Station Hospital, Fort Sill.

Terry, John Banner, 1st Lieut., Wewoka, Kelly Field, Texas.

Traverse, Clifford A., 1st Lieut., Alva, 213th General Hospital, Camp Bowie, Texas.

Walker, John Hicks, 1st Lieut., Muskogee, Station Hospital, Fort Sill.

Waters, Floyd Leo, 1st Lieut., Hugo, Camp Barkeley, Texas.

Wolfe, Reed, Captain, Oklahoma City, 368th Infantry, Fort Huachuca, Arizona.

Zampetti, H. A., 1st Lieut., Lawton, Fort Logan, Colo.

Orders Revoked

Baze, Roy Ellis, Chickasha.

Cowart, O. H., Bristow.

Gallaher, Paul C., Shawnee.

King, Everett G., Duncan.

Newman, M. H., Shattuck.

Rucker, Ralph Weller, Bartlesville.

Sanger, Paul Griffith, Vinita.

Waters, Floyd Leo, Hugo.

President Announces Appointment Of Committees for 1941-'42

Announcement of the committees he has appointed to serve during his administration has been made by Finis W. Ewing, M.D., president of the Association, Muskogee.

Dr. Ewing's selections for the special committees are as follows:

Conservation of Vision—Dr. Charles Harralson, Tulsa; Dr. E. H. Coachman, Muskogee, and Dr. F. Maxey Cooper, Oklahoma City.

Conservation of Hearing—Dr. H. F. Vandever, Enid; Dr. Hugh Evans, Tulsa, and Dr. T. R. Lutner, Lawton.

Crippled Children—Dr. C. R. Rountree, Oklahoma City, Dr. Ian McKinzie, Tulsa, and Dr. Thomas McElroy, Ponca City.

Industrial and Traumatic Surgery—Dr. I. C. Bollinger, Henryetta; Dr. O. S. Somerville, Bartlesville, and Dr. W. G. Chestnut, Miami.

Maternity and Infancy—Dr. Charles Ed White, Muskogee; Dr. J. B. Eskridge, Oklahoma City, and Dr. J. H. Veazey, Ardmore.

Necrology—Dr. R. M. Anderson, Shawnee; Dr. John A. Haynie, Durant, and Dr. W. H. Livermore, Chickasha.

Post-Graduate Medical Teaching—Dr. Henry H. Turner, Oklahoma City, Dr. H. C. Weber, Bartlesville, and Dr. M. J. Searle, Tulsa.

Study and Control of Cancer—Dr. C. P. Bondurant, Oklahoma City; Dr. W. S. Larrabee, Tulsa, and Dr. P. B. Champlin, Enid.

Study and Control of Tuberculosis—Dr. F. P. Baker, Talihina; Dr. R. M. Sheppard, Tulsa, and Dr. Carl Puckett, Oklahoma City.

Study and Control of Venereal Diseases—Dr. Joe Fulcher, Tulsa; Dr. S. F. Wildman, Oklahoma City, and Dr. F. J. Baum, McAlester.

Medical Economics—Dr. Horace Reed, Oklahoma City; Dr. W. A. Howard, Chelsea, and Dr. McLain Rogers, Clinton.

Public Health—Dr. J. Y. Battenfield, Oklahoma City; Dr. G. S. Baxter, Shawnee, and Dr. H. K. Riddle, Coweta.

Dr. Ewing also has announced his appointments to the standing committees. These appointments were approved during the Annual Meeting by the House of Delegates of the Association.

The new members and the committees to which they were appointed are: Dr. H. K. Speed, Sayre, Credentials; Dr. R. C. Pigford, Tulsa, Scientific Work; Dr. Roscoe Walker, Pawhuska, Medical Education and Hospitals; Dr. M. D. Carnell, Okmulgee, Publicity; Dr. J. M. Bonham, Hobart, Judicial and Professional Relations, and Dr. Frank W. Broadway, Ardmore, Public Relations.

Dr. Ewing also selected as members of the Women's Auxiliary Advisory council Dr. George H. Garrison, Oklahoma City; Dr. T. H. McCary, McAlester; Dr. W. L. Shippey, Poteau, and Dr. J. B. Hollis, Mangum.

Research on a large scale *at Lederle Laboratories*

Lederle is spending over $100,000 a year on sulfonamide research and still more on other pharmacological investigations. But the traditional eminence of Lederle is in biologicals and the bulk of its research, employing many experienced scholars and a generous-sized staff, is devoted to blazing new paths toward better and still better antitoxins, anti-sera and vaccines. There are over sixty virus diseases of man or beast as yet unconquered, a new concept of the nature of virus to be applied and new tools like the air-borne centrifuges (60,000 r.p.m.!), the Tiselius machines and the electron microscope, all at work today for Lederle.

Fascinating fun for an eager staff in buildings all their own on Lederle's 200-acre serum farm!

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK, N. Y.

Lederle
CHEVRON OF SERVICE

Auxiliary News

The Cleveland County auxiliary, which meets every second and fourth Thursday at the Central State Hospital at Norman, has adopted an English child. At the last meeting, 15 of the 26 members were present. Members of this auxiliary sew for the Red Cross at their business luncheon meeting every two weeks.

The Garfield County auxiliary met March 24 in the country home of Dr. and Mrs. Hudson of Enid, with 15 of the 20 members attending. Mrs. J. W. Mercer is president of this group. At the meeting, Mrs. Hawkins, a Public Health nurse, talked to the members on health subjects. The Garfield group sponsors a "Maid-School" in Enid.

Dr. Earl Woodson reviewed "Horse and Buggy," by Dr. Arthur E. Hertzler, at the meeting of the LeFlore County auxiliary, April 1, at the Hotel Judkins-Forbes. Mrs. Rush Wright is president of this group. At the meeting, the auxiliary voted to cooperate with the chairman of Cancer Control, and to observe Hospital day, May 12. Officers of the group for next year are: Mrs. S. D. Bevill, president; Mrs. E. L. Collins, president-elect; Mrs. Rush Wright, vice-president; Mrs. Nelson Rolls, secretary-treasurer, and Mrs. Harrell Hardy, publicity.

Officers elected for next year for the Oklahoma County auxiliary are: Mrs. Neil Woodward, president; Mrs. W. Floyd Keller, president-elect; Mrs. P. M. McNeill, vice-president; Mrs. Milam F. McKinney, corresponding secretary; Mrs. Jess D. Herrmann, recording secretary; Mrs. Allen Gibbs, treasurer; Mrs. Charles Smith, assistant treasurer; Mrs. F. Maxey Cooper, parliamentarian, and Mrs. Joseph W. Kelso, press and publicity. This auxiliary met April 23 at the Y. M. C. A. in Oklahoma City, when plans were made for the Public Relations Coffee, May 9, at which General Patterson, Dean of the Oklahoma School of Medicine, spoke on "Doctors in the Defense Program." Each member of the auxiliary was allowed to bring two guests to the coffee. Also at the April 23 meeting, members voted to continue sewing for the Red Cross every Wednesday and to organize a First Aid unit. Plans were made to entertain guests at the State Medical meeting at a luncheon, May 20, at the Oklahoma club. Annual reports were given by all officers, and Mrs. F. Maxey Cooper, president, appointed a delegate and alternate for the A. M. A. meeting in Cleveland. Fifty-five of the 162 members were present.

Tulsa County auxiliary met Tuesday, April 1, in the home of Mrs. E. Rankin Denny, with Mrs. J. W. Rogers presiding. Thirty-two of their 138 members were present. The following officers were elected for the coming year: Mrs. T. B. Coulter, president; Mrs. J. W. Childs, president-elect; Mrs. Logan A. Spann, vice-president; Mrs. Hugh Evans, recording secretary; Mrs. Donald L. Mishler, corresponding secretary; Mrs. Ralph McGill, historian and Mrs. H. Lee Farris, parliamentarian. Annual reports were made by the officers. The Tulsa group purchased an Ultra-Violet Ray machine which is leased for $1.00 a year to the Tulsa County Medical society.

New officers of the Pittsburgh County auxiliary are: Mrs. R. K. Pemberton, president; Mrs. A. R. Stough, vice-president; Mrs. Graham Street, secretary; Mrs. C. E. Lively, treasurer; Mrs. J. F. Clark, parliamentarian; Mrs. F. L. Watson, historian; Mrs. L. S. Willour, public relations, and Mrs. E. D. Greenberger, press and publicity.

Classified Advertisements

FOR SALE: One Wappler "MONEX" X-ray machine and Accessories. The machine does not interefere with radio reception and delivers 100 MA. The equipment invoiced $1500 new. Address inquiries to Oklahoma State Medical Association, Box B, 210 Plaza Court, Oklahoma City.

For the local Treatment of Acute Anterior Urethritis
(DUE TO NEISSERIA GONORRHEAE)

SILVER PICRATE*
Wyeth

A complete technique of treatment and literature will be sent upon request

*Silver Picrate is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

Silver Picrate, Wyeth, has a convincing record of effectiveness as a local treatment for acute anterior urethritis caused by Neisseria gonorrheae.[1] An aqueous solution (0.5 percent) of silver picrate or water-soluble jelly (0.5 percent) are employed in the treatment.

1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., 23, 201 (March), 1939.

JOHN WYETH & BROTHER, INCORPORATED, PHILADELPHIA

Lederle has taken over

CEREVIM*

Cerevim is a pre-cooked cereal food of high nutrient values carefully balanced for the dietary requirements and digestive abilities of babies. It gets its calcium and phosphorus from milk powder and it is distinctly appetizing.

Hence, a willing intake! Infants gain weight and height on Cerevim.

All of which was indicated in 1937 in controlled studies on infants by Joslin and Helms[1] whose teachings are followed in the Cerevim formula.

Cerevim was designed to be baby's first solid food at 4 months, yet

—it has food values needed in the diets of adult invalids or dyspeptics requiring soft, bland, low-ash, easily digested diets attractive to frail appetites, and

—Admiral Byrd bought it for 25% of the balanced trail ration for his husky men in the Antarctic. Council-accepted . . . Sold only through drug stores.

[1]ARCH. PED., SEPT. 1937

Formula—Whole wheat meal • Oatmeal • Yellow corn meal Barley • Powdered skim milk • Wheat germ • Dried brewers' yeast • Malt • 1% table salt for flavoring

PACKAGES: 1 pound and ½ pound.

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK, N. Y.

*Cerevim has been hitherto marketed on a three-year trial basis on the Atlantic seaboard by Cerevim Products Corporation with increasing encouragement from leading pediatricians; hereafter Cerevim will be made and sold by Lederle Laboratories, Inc.

NEWS FROM THE COUNTY SOCIETIES

Members of the Tulsa County Medical society exchanged their medicine bags for golf bags, April 24, to participate in the annual golf tournament of the society. Dr. K. C. Reese, Tulsa, won the Dr. Albert Cook perpetual trophy when he finished first in the tournament, and Dr. James Braswell, also of Tulsa, won the Scotty Taylor cup for second place.

Dr. W. A. Showman, chairman of the society's golf committee, was in charge of arrangements for the tournament which was held at the Tulsa Country club.

The Pittsburg County Medical society joined the Pittsburg County Bar association in a meeting April 25 in the Hotel Crutcher, McAlester. Following a buffet supper, the lawyers presented a program on medico-legal subjects, and the doctors went on the witness stand for industrial disability.

After the meeting, a smoker was held.

Dr. C. F. Paramore, Shawnee, discussed "Obesity," and Dr. E. E. Rice, Shawnee, discussed "Intussusception" at the monthly dinner meeting of the Pottawatomie county society, April 19, in Shawnee. Twenty members of the society were present.

Dr. H. E. Hughes, Shawnee, will preside at the next meeting, May 17 in Shawnee. The program for this meeting has not been announced.

Guest speaker at the April 16 meeting of the Seminole County society was Mr. Boutwell of the Farm Security administration. Mr. Boutwell explained to the group how the administration paid doctors for medical care of the administration's loan families.

The society will hold its next meeting, May 21, in Wewoka.

Dr. Franklin T. Bowers of the American hospital, Picher, became a new member of the Ottawa County society, at a meeting April 17.

Speakers at the meeting were Dr. M. O. Hart, Tulsa, who discussed "Privileges," and Dr. W. H. Calhoun, who spoke on "Some Phases of the Injection Treatment of Hemorrhoids." Next meeting of the group will be held May 4.

Dr. Patrick Nagle, Oklahoma City, was the guest speaker at the Garvin County society meeting, April 16, at the Chamber of Commerce in Pauls Valley. Doctor Nagle discussed "Ruptured Appendix." The Garvin society will meet again at the Chamber of Commerce, Pauls Valley, May 14, when Dr. J. A. Walker, Shawnee, will discuss "The Pyramids of Egypt."

Dr. D. H. O'Donoghue, Oklahoma City, discussed "The Treatment of Fractures," giving particular emphasis to the medico-legal phase of his subject, at the regular meeting of the Cleveland County society, April 24, in the State Hospital, Norman. Doctor O'Donoghue illustrated his talk with a number of x-ray pictures.

The society also met April 29 in a special session for discussion of what part physicians will have to play in in the national defense program. Members will meet again, May 8, at the State Hospital, Norman. Speaker for the evening will be Dr. Henry H. Turner, Oklahoma City, who will talk on "Male and Female Sex Hormones."

Fifteen physicians and their wives attended the May meeting of the Woodward County society, May 8, at the Methodist church, Woodward. Dr. Paul H. Daube, Shattuck, chose "Club Feet" as the subject for his talk, and Dr. W. R. Hunter, a guest, spoke on "Some Dental Problems."

The society held its April meeting in Woodward, April 10, when Dr. George H. Kimball, Oklahoma City, spoke on "Plastic Surgery," and Dr. Grace Hassler, also of Oklahoma City, talked on "Anesthetics." Next meeting of the society will be June 12 in Supply, with Dr. John L. Day and his staff acting as hosts.

The Payne County society met in a special session April 29 in Stillwater to discuss plans for physicians' participation in the national defense program. Twenty-five members were present at the meeting. Dr. R. E. Wagoner, Stillwater, led discussion on the plans, and Dr. W. L. Smith, Stillwater, presided.

Another county society met in special session to discuss the physicians' part in the defense program. Members of the Carter County group met April 28 in Ardmore, with Dr. F. W. Boadway, chairman of the county medical preparedness committee, in charge of the discussion.

All the Vitamins found in Wheat

(–Including 600 International Units of Vitamin B_1 per loaf)

Note to Physicians:

Vita-B Bread is offered to the public as a part of a normal, balanced diet. Full information concerning formula, ingredients, etc., will be supplied physicians wishing to prescribe Vita-B in deficiency cases.

News From The State Health Department

The Oklahoma law requiring that blood tests for syphilis be made during pregnancy has been in effect now for two years.

The Oklahoma State Health Department wishes to again call to the attention of the physicians of the State, the contents of this law. It is as follows:

Article 3.

STATE DEPARTMENT OF PUBLIC HEALTH
SEROLOGICAL BLOOD TESTS FOR SYPHILIS
SENATE BILL 92.

AN ACT relating to serological blood tests for syphilis during pregnancy and reports thereof.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA.

Physicians—Duty—Blood Samples—Tests.

SECTION 1. Every physician attending a pregnant woman in the State during gestation shall, in the case of each woman so attended, at her request or with her consent, take or cause to be taken a sample of blood of such woman at the time of first examination, and submit such sample to an approved laboratory for a standard serological test for syphilis. Every other person permitted by law to attend upon pregnant women in the State, but not permitted by law to take blood tests, shall cause the blood of such pregnant woman to be taken by a duly licensed physician and submitted to an approved laboratory for a standard serological test for syphilis. The term "approved laboratory" means a laboratory approved for this purpose by the State Commissioner of Health.

A standard serological test for syphilis is one recognized as such by the State Commissioner of Health. Such laboratory tests as are required by this Act shall be made on request without charge by the State Department of Public Health.

Births—and Stillbirths—Certificates—Blood Tests.

SECTION 2. In reporting every birth and stillbirth, physicians and others permitted to attend pregnancy cases and required to report births and stillbirths shall state on the certificate of birth whether a blood test for syphilis has been made during such pregnancy upon a specimen of blood taken from the woman who bore the child for which a birth or stillbirth certificate is filed, and if made, the date when such test was made, and, if not made, the reason why such test was not made. Such information shall be in addition to that required to be included in certificates of birth by Section 4509, Oklahoma Statutes 1931. In no event, however, shall the certificate of birth state the result of the test herein required.

Approved March 10, 1939. Acts of the Seventeenth Legislature.

The standard certificate of birth for the State of Oklahoma, Section 23 (b), asks "Was Blood Test for Syphilis Made," but the physician is not to give the results of the test. At the present time, only 39 per cent of the certificates of live birth coming through the State Health Department, have the answer "Yes" to this question while only 21 per cent of the stillbirth certificates answer "Yes" to the question. We are not proud of this figure when such states as New Jersey report 93 per cent "Yes" to live births, and 42 per cent "Yes" to stillbirths.

It is felt that more mothers are receiving blood tests than the 39 per cent and 21 per cent, respectively, but that the physicians are failing to indicate on the certificates as to whether the test has been made or not.

It is highly essential that routine serological blood tests for syphilis be made on all pregnant women, as at least 1,000,000 women of child bearing age in this country, have contracted syphilis, many of them innocently. Five times out of six, mothers with untreated syphilis, bear diseased or dead babies. Nine out of ten of them —deaths, abortions, stillbirths, and congenital syphilitics, need not have happened. Modern medical treatment given—not to the infant—but to the mother during pregnancy, will insure birth of a healthy, living baby in practically every instance.

Prenatal syphilis can be stopped if mothers know that they are infected with syphilis. It is not enough to treat only pregnant mothers with visible signs of syphilis, but it is highly important for every mother, during pregnancy to have a blood test.

No mother objects to a drop of Silver Nitrate in the eyes of her baby, which has wiped out infant gonnorrheal blindness. In fact, she would complain if the doctor forgot the drop. Prenatal syphilis may be wiped out in the same way if routine blood tests and medical treatment are given.

Time is the most important element in the treatment of pregnant mothers for syphilis. Every treatment that can be given before the baby is born, is a safeguard against disaster. Hence, it is necessary to discover the infection in the mother as soon as possible. When the infection is discovered before the fifth month of pregnancy, and treatment is given continually until birth, in nearly every case, the baby will be born healthy, untouched by syphilis.

Let us all strive to increase the number of blood tests early in pregnancy on all pregnant mothers, so indicate on the birth certificate—and insure adequate anti-syphilitic treatment.

The Oklahoma State Health Department has a new book "Syphilis in Mother and Child," which they will supply to any physician upon request to his full time county health department, or from the State Health Department.

Group Hospital Service Again Approved in 1941

Group Hospital Service has been notified of its approval by the American Hospital Association for 1941. The organization received its first approval shortly after it began operating in the state and is the only approved plan in Oklahoma.

In again being honored in this respect, GHS is meeting all of the strict standards imposed on such service plans by the American Hospital Association. The approval is based upon its compliance with such standards plus community service. The Oklahoma State Hospital Association as well as the Oklahoma State Medical Association should feel justly proud of the record made by GHC in its first year of operation.

Dr. George W. Sisler (1863-1941)

Death claimed an outstanding member of the medical profession March 23, when George W. Sisler, M. D., died at his home in Tulsa. Dr. Sisler was 77 years old. His death was caused by coronary thrombosis.

Dr. Sisler was born May 3, 1863, at Stewartstown, West Va. He received his preliminary education at the University of West Virginia at Morgantown, then taught school several years in Mississippi. In the summer of 1903, he went to the University of the South at Sewanee, Tenn., to begin his medical education; that fall, he attended the Memphis Hospital Medical college.

He was graduated from Maryland Medical college at Baltimore in 1905, and was licensed to practice medicine in the state of Mississippi. He did general practice at Water Valley, Miss., from 1905 until 1924, when he moved to Bristow, Oklahoma. In Bristow, he remained in general practice until 1933 when he retired and moved to Tulsa.

His survivors include his wife, Mrs. Margaret R. Sisler, Tulsa; two sons, Dr. Frank Sisler, Bristow, and Dr. Wade Sisler, Tulsa; three daughters, Miss Ella Siser, Tulsa, Mrs. John P. Stone, Coffeyville, Miss., and Mrs. Margaret Bond, Tulsa; a brother, C. B. Sisler, Vardamen, Miss., and a sister, Mrs. Saxe, Morgantown, West Va.

BOOK REVIEWS

"The chief glory of every people arises from its authors."—Dr. Samuel Johnson.

A SURGEON'S LIFE, THE AUTOBIOGRAPHY OF J. H. T. FINNEY. By Cloth. Price $3.50. New York: G. P. Putnam's Sons, 1940.

An interesting story of a well known surgeon whose career was influenced by three great universities and intimately linked with the most productive period in the history of medicine.

The life story is well told and it reveals the development of laboratory procedures, experimental medicine, the perfection of anesthesia; the transition from antiseptic to aseptic surgery and the gradual perfection of surgical technique with the ever-widening field for surgical approach and accomplishment.

It gives an account of his academic education at Princeton, his service on the Board of Trustees and later his refusal to accept the Presidency of Princeton University. It tells of his medical education at Harvard with side-lights on the outstanding members of the Medical School Faculty, including Oliver Wendell Holmes who, though retired from active duties, occasionally gave a lecture on anatomy. It relates his experiences as an intern at the Massachusetts General Hospital, including an attack of appendicitis which placed him under the care of Dr. Fitz, who treated him expectantly, although he had already published his description of appendicitis, giving diagnostic criteria announcing the efficacy of surgical treatment.

It tells of his going to Johns Hopkins to work under Halsted, where he observed the magic work of the "Big Four" in the development of a great medical school. It depicts the unfolding of his own surgical career under the most favorable and inspiring environment. It gives an interesting account of his services in the Medical Department of the A.E.F. Base Hospital Eighteeen, and his return to civil life after the World War when, in the mellowing years, he achieved a greater success in his profession and extended his influence in the field of education and in social, political and civic welfare.

His intimate, personal sketches lead to a better knowledge and greater appreciation of men like Osler, Welch, Kelley, Halsted, Thayer and Barker.

Finally, there is a wealth of humor to enliven the perusal of this valuable book. Dr. Finney's appreciation of the colored people, his skilful manipulation of their language and his well chosen Negro stories, glowing with their naive response to environment, add a rare charm and lessen the tension which otherwise might characterize the story of such a strenuous life crowded with heavy responsibilities.—L.J.M.

THE LIFE OF CHEVALIER JACKSON, AN AUTOBIOGRAPHY. Cloth. Price $3.50. New York: The MacMillan Company. 1938.

A book every young doctor should read. In a very short preface the author declares that he never thought that anyone would be interested in the events of his life until requests for biographical material came from various sources. He also "disavows any thought of presenting an example to be followed." This brevity, with the expression of innate modesty and the sincere disavowal, immediately recommends the book to modern youth.

It is easy to read, the illustrations are interesting and instructive, and the subject matter is so skilfully handled there is not a dull chapter among the thirty-two making up the volume. This sustained interest is due to intensive living with never a moment's pause. Chevalier Jackson's life represents a ceaseless struggle; first against poverty, later the toxemia of tuberculosis and always the interesting obstacles in the way of progress along an unblazed trail. His remarkable career exhibits unusual industry and imagination, exceptional mental acumen, rare mechanical ingenuity, with a strange agility of coordination leading to the accomplishment of difficult tasks.

No one can read of his first fishing experinece, his struggle for an education, his early practice, the dark days in Pittsburgh and the beginnings of bronchoscopy without hurrying on to learn of his marvelous development of a new field, his spreading fame at home and abroad, his burning desire for the dissemination of knowledge acquired in order to alleviate suffering and to save life.

Dr. Jackson's periodic bouts with tuberculosis constitute an interesting phase of his life. As so often happens when this disease descends upon those who possess unusual mental qualities, a seeming calamity was turned into a blessing. Enforced bed rest provided time for both thought and action, accumulated data were assembled, illustrations planned and manuscripts prepared for publication. Without the conditioning influence of tuberculosis, the world would have waited much longer for detailed accounts of Chevalier Jackson's work, and aspirated foreign bodies would have killed thousands while the medical profession awaited his reports on bronchoscopy.

Enough has been said to show that here is the life story of an exceptional man with a distinctive type of mind. Such a personality could hardly escape eccentricities. They are strikingly revealed and quite worthy of serious study. Those who read intelligently will find, in the story, a happy man containing a wealth of common sense and inescapable inspiration.—L.J.M.

Train Schedule For A. M. A. Meeting

Physicians traveling to Cleveland to the American Medical association meeting June 2-June 6, will be interested in the following train rate list and time schedule:

Going

FRISCO LINES		
Lv. Oklahoma City	5:45 PM	Daily
Lv. Tulsa	8:35 AM	Daily.
Ar. St. Louis	8:00 AM	Next day.
BIG FOUR RR		
Lv. St. Louis	9:10 AM	Daily.
Ar. Cleveland	8:15 PM	Same day.

Return

BIG FOUR RR		
Lv. Cleveland	8:00 AM	Daily.
Ar. St. Louis	4:58 PM	Same day.
FRISCO LINES		
Lv. St. Louis	6:30 PM	Daily.
Ar. Tulsa	*5:20 AM	Next day.
Ar. Oklahoma City	8:10 AM	Next day.

*Sleeper sets out in Tulsa and can be occupied until 8:00 AM.

	From Oklahoma City	From Tulsa
Round trip first class fare to Cleveland, good for 60 days	$56.25	$49.35
Round trip fare to Cleveland, using pullman to St. Louis and coach to Cleveland	40.45	35.15
Lower berth to St. Louis	4.20	3.70
Upper berth to St. Louis	3.20	2.80
Seat in pullman, St. Louis to Cleveland	$2.10	

Pullman rates for the round trip—double the above amounts.

REVIEWS and CORRESPONDENCE

SURGERY AND GYNECOLOGY

Abstracts, Reviews and Comments From
LeRoy Long Clinic
714 Medical Arts Building, Oklahoma City

"Review of the First Meeting of the Surgical Investigative Society of the South, Oct. 6 and 7, 1940, Vanderbilt University School of Medicine, Nashville, Tennessee." By Michael DeBakey, M. D., Tulane Medical School, New Orleans. Surgery, March, 1941, Vol. 9, No. 3, Page 483.

The Surgical Investigative society of the South has been organized from a group of southern surgeons. The purpose of the organization is to band together a small group of contemporaries, interested in surgical progress and by annual meetings at some medical center to exchange ideas and to see for themselves the advances and research, in progress.

"The Use of Sulfanilamide, Sulfapyridine, and Sulfathiazole on the Surgical Service of Johns Hopkins Hospital." By Samuel McLanahan, Baltimore.

With the development of new derivatives in the sulfanilamide group, the indications for and use of these drugs are undergoing constant change. Sulfanilamide, however, continues to hold its place in the treatment of hemolytic streptococcal infections. In Welch bacilli infections it has proved effective clinically. Especially has it been used prophylactically in compound fractures and other open wounds. Introduced locally in the wound it has apparently been effective and has not interfered with wound healing.

Sulfapyridine was a welcome addition to the series, but in actual practice it is being replaced very largely by sulfathiazole. The latter drug is less likely to produce nausea but more likely to produce a rash and the troublesome drug fever.

In abdominal surgery, sulfathiazole is achieving special success. Recent reports by A. F. Jonas indicate its effectiveness in treating and preventing peritonitis. It has been given as a routine measure in the postoperative treatment of ruptured appendicitis and abdominal trauma, and as a preoperative measure in operations upon the colon. The sodium salt, not yet available commercially, has frequently been employed for intravenous use. Rectal strictures due to lymphopathin venereum have responded to sulfanilamide, sulfapyridine, and another drug, sulfanilic acid.

"Round-Table Discussions on Suture Material and Wound Healing." By Michael DeBakey, New Orleans.

DeBakey prefaced the discussion by stating that the purpose of the round table was to present an opportunity for the members to discuss informally some surgical subject previously selected of current interest. Such a discussion would permit members of various sections to express their opinions and experiences and help crystallize a more rational comprehension and perhaps allow a better evaluation of the subject.

Because of the recent revival of interest in suture material, it was selected for this discussion. In the surgical service at Tulane University they had previously employed catgut and this was followed by the use of silk. On the basis of extensive experimental studies done in the Experimental Laboratory at Tulane by Alton Ochsner and Wm. Meade, it was found that cotton was the most desirable suture material. This was verified clinically and at present cotton is used exclusively. The advantages of cotton are that it produces minimal tissue irritation, is pliable and easily sterilized, is of sufficient strength in appropriate sizes, and is economical. Its tensile strength in tissue decreases considerably less than catgut, silk, or linen.

In clinical practice it should be realized that Halsted's rules regarding the use of silk must be strictly adhered to in the use of cotton. Ordinary spool cotton thread as bought in a notion store is employed. It is prepared by wrapping it on rubber tubes and autoclaving it for fifteen minutes at 15-pound pressure or by boiling for twenty minutes. For ligation of small vessels in the subcutaneous tissue or other areas, No. 60 or 80 is used. For approximation of the peritoneum or fascia, "quilting cotton" is employed. A heavier material is rarely necessary, but occasionally No. 10 mercerized crochet cotton may be required. Samuel McLanahan, Baltimore, asked about cotton in the face of infection. DeBakey stated that on the basis of their experience one of the most important uses of nonabsorbable suture material is in contaminated wounds. Cases in which cotton was used in severely infected wounds have been observed to heal without sinus formation or the extrusion of the sutures. Apparently this complication is less likely to occur with cotton than with silk. Moreover, the use of a nonabsorbable suture material in the presence of infection is considered more desirable than the use of absorbable material because wound disruption is believed to be more likely with the latter for two reasons; first, the infection delays wound healing; and second, the liberated proteolytic ferments cause early digestion of the suture material. John V. Goode, Dallas, stated that he has used cotton ever since an article appeared in the Journal of the American Medical Association, in which a case was described of a colored woman who had the external carotid tied and no cotton came out in spite of wound infection. An important advantage is that it can be so easily sterilized. He stated that in a case in which the ovaries were removed the skin edges were closed with a subcuticular piece of cotton which is still there and there has been no reaction. He has watched this with a great deal of interest. Donald Donaldson, Birmingham, Alabama, asked if silk is used to close the peritoneum and if continuous sutures are ever used. De Bakey answered that cotton is used all the way through and that interrupted sutures are used exclusively. He emphasized the importance of cutting the suture down on the knot. To facilitate this a special suture scissors has been devised and was described in the J.A.M.A. 112: 4210, 1939. Richard T. Shackelford, Baltimore, stated that one other suture material has been overlooked and that is alcohol-preserved fascia. Not many surgeons use it. Their experience has been that there is considerable accumulation of fluid interfering with the healing of the wound. Probably fascia is not used in the proper way. He and his associates have used it a great deal. This includes about 185 to 190 hernia patients. Experience has shown that, if the fascia is properly soaked before the time of operation, accumulation of secretion does not occur. In an operation is to be done at 9:00 A. M., the nurses place the alcohol-preserved fascia in a basin of salt solution as soon as they enter the operating room at 7:30, one and one-half hours before time to start the operation. Then it is changed to a fresh basin of solution and left

there until 9:30 or 9:45. Frequently in large postoperative hernia one saves a great deal of time by not having to make a long incision in the thigh to obtain autofascia. There are many times when one cannot dissect a section of the rectus sheath. Alcohol-preserved fascia can solve a lot of these difficulties, and the secret of its proper use is the elimination of the chemical element. They have used it on animals and in human beings and have seen little, if any, difference in any way in the healing with alcohol-preserved fascia and autofascia.

LeRoy D. Long.

"Dermoid Cysts of the Ovary." By Herman J. Linn, M. D., and Alex B. Ragins, M. D., Chicago, Illinois. American Journal of Obstetrics and Gynecology, February, 1941, Vol: 41, No. 2, Page 328.

This is a report of the dermoid cysts of the ovary removed at operation at the Cook County Hospital from July 1928 to December 1938. There were 121 such dermoid cysts, comprising 14.9 per cent of all ovarian tumors, excluding enlargements of the ovary due to simple follicular cysts and corpora hemorrhagica.

The presenting symptom was pain in the abdomen in 49.4 per cent and swelling of the abdomen in 29.2 per cent. The next most frequent complaint was menstrual changes, occurring in 15.7 per cent of the patients.

"The dermoid cysts were correctly diagnosed preoperatively in only 3.1 per cent of the cases, but the diagnosis of ovarian tumor or cyst was made in 30.9 per cent of the cases. The other common preoperative diagnoses were uterine fibroids in 39.2 per cent, and chronic salpingitis or tuboovarian abscess in 13.4 per cent."

The authors emphasize the fact the dermoid cysts, though one of the commonest ovarian tumors, are seldom diagnosed preoperatively because of the indefinite symptoms they produce. They are also often incident to other pelvic conditions.

COMMENT: The value of this article lies in the reemphasis of the fact that dermoids are not uncommon tumors of the ovary and must always be considered in a differential diagnosis when an ovarian tumor is encountered. Since all neoplastic ovarian tumors deserve operation, it may be said that the preoperative diagnosis is not important. However, it is only by the most careful diagnostic measures preoperatively that we can best improve the definiteness and accuracy of our surgical treatment of pelvic disease.

Wendell Long.

"Clinical Evaluation of Stilbestrol in Women With Hypolastic Genitalia." By H. Harold Lardaro, M. D., F. A. C. A., New York, N. Y. American Journal of Obstetrics and Gynecology, February, 1941, Vol. 41, No. 2, Page 301.

"Except in rare instances this drug does not produce any demonstrable enlargement of the uterine cavity.

"It seems definitely to have clinical estrogenic effects.

"It produces undesirable side reactions in a large percentage of patients. These may or many not be toxic.

"These side effects seem to be at least as frequent and as severe by the intramuscular route as those reported by the oral route.

"These side effects are not permanent and disappear with cessation of therapy.

"Its effect on the endometrium and on the menstrual cycle seems to resemble closely that of large doses of the natural estrogens.

"Tolerence seems to be frequently developed. There appear to be no cumulative effects from continued use of the drug.

"In a small number of patients treated with varying dosages, it was our experience that the side effects varied with the dose administered."

"Result of Therapy. — In not one case did we see any improvement or other effects on the secondary sex characteristics. There was no enlargement of the breasts or labia. Three patients developed engorged, swollen, and painful breasts. Two of these were quite severe, the other only slightly so. One of these patients with oligomenorrhea had had some breast discomfort for many months. Her symptoms were aggravated and persisted for three months after cessation of therapy. In the others, the symptoms cleared up on discontinuing medication."

COMMENT: This is another report on Stilbestrol which confirms previous observations upon the drug.

This article is particularly important because there was no enlargement of the genitals or improvement of the condition for which it was employed.

Wendell Long.

"The Endometrial Biopsy in Early Extrauterine Pregnancy." By Daniel R. Mishell, M. D., Newark, N. January, 1941, Vol. 41, No. 1, Page 129. J. American Journal of Obstetrics and Gynecology,

Suction endometrial biopsy was utilized in two patients of suspected extrauterine pregnancy. The histologic findings obtained were defined to warrant the diagnosis of early gestation. Attention is called to the fact that there is a characteristic glandular pattern seen in early pregnancy, that there is a decidual reaction, and that there are no chorionic villi within the uterus if the pregnancy is outside of the uterus.

Both of the case reports given show a history of pain and vaginal bleeding with the histological findings from the biopsy of the endometrium indicative of extrauterine pregnancy. Both patients were operated upon and tubal pregnancies found. Frozen sections were employed to study the endometrial biopsies so that very little time elapsed between the biopsy and the operative procedure.

"It must be borne in mind that the endometrial study should not be regarded as the sole method of establishing the diagnosis. We must take into consideration the history and the clinical data, together with the histologic findings. Furthermore, it must be emphasized that endometrial biopsy should not be attempted if intrauterine pregnancy is suspected."

COMMENT: The diagnosis of extrauterine pregnancy can be a most trying one and any information or means of obtaining information becomes valuable in particular diagnostic problems. Since it has been known for a considerable time that there is a peculiar glandular pattern, a typical decidual reaction, and no chorionic villi in the uterus when there is an ectopic pregnancy, the use of the suction endometrial biopsy punch offers a simple way of obtaining a specimen in early suspected cases. As has been pointed out frequently and is here again emphasized, the decidua is absent from the uterus freuently in long-standing ruptured ectopic pregnancy and a negative endometrial biopsy in long-standing patients would be of relatively little value.

Wendell Long.

"Irradiation of Benign Pelvic Lesions." By Willis E. Brown, M. D., N. R. Kretzschmar, M. D., and John T. McGreer, M. D., Ann Arbor, Michigan: American Journal of Obstetrics and Gynecology, February, 1941, Vol. 41, No. 2, Page 285.

This study was undertaken by the authors to determine: (1) the efficiency of irradiation in control of uterine bleeding, (2) the evaluation of the menopausal symptoms which might ensue and (3) the improvement of their method of applying roentgen radiation for the purpose of castration.

From July 1925 to July 1937 they treated 334 patients with X-ray or radium for benign pelvic lesions. Of these, 78 per cent were treated because of abnormal uterine bleeding, 3 per cent because of endometriosis, 13 per cent because of debilitating extrapelvic lesions, such as carcinoma of the breast and advanced pulmonary tuberculosis, and 15 per cent because of persistent chronic salpingo-oophoritis.

All patients treated for benign uterine bleeding were curetted on one or more occasions and the material so obtained examined carefully microscopically to rule out the presence of a cancer.

They describe in some detail their method of varying the X-ray dosage in accordance with the patient's weight and it appears by their study that at least 625 r. to 749 r. to the ovary is necessary to assure permanent castration regardless of age.

"It should be noted that 5 of the 6 patients receiving the smallest amount of irradiation given in this series (125 r. to 249 r.) and intended as a temporary or subcastration dose were castrated permanently."

Sixty-three of the patients were treated by means of an intrauterine application of radium. One thousand to fifteen hundred mg. hours of radium was efficient in 77 per cent of the cases in producing castration. While their group with larger dosages is smaller, they feel that probably 1,500 to 2,000 mg. hours should be sufficient for castration in most instances. Yet, here again, they are struck by the variability in the effect of smaller dosages. "Attention is called to the one patient who received less than 500 mg. hours and yet was permanently castrated. Here, as with X-ray in small doses given for temporary or partial castration effect, sufficient uncertainty exists to offer a serious objection to their use in young individuals with the hope that symptoms will be controlled without interference with fertility in later years."

Of 160 patients who were castrated and were free from hot flashes before irradiation, 118 or 73 per cent developed this symptom following treatment. Among the 32 patients not castrated, 62 per cent developed hot flashes. In a controlled study of surgical castration, 86 per cent of the patients developed hot flashes after bilateral oophorectomy and 58 per cent developed them after hysterectomy with ovarian conservation though no description is given as to ovarian disease at the time of operation nor the amount of ovary retained. It is their conclusion that incidence of hot flashes after castration by irradiation is somewhat less than that following bilateral oophorectomy and they feel their figures suggest that sub-total hysterectomy with ovarian conservation will alter ovarian function to almost the same extent as complete castration by irradiation.

In their castrated patients 42 per cent reported a decrease in libido and those with a recurrence of menstruation after treatment 36 per cent stated that there was a decrease in libido. In their controlled surgical group they felt that the surgical and irradiation effects were about the same.

"The use of radiation in adequate dosage, either X-ray or radium, appears to be an efficient means of controlling benign bleeding. It is most applicable in women approacting the menopausal age who have completed their reproductive activity. The age at which a patient should be considered as near the menopause is debatable but since reports on large series of cases indicate that the menopause occurs before forty years of age in 5 to 12 per cent of women, and between 40 and 45 in 75 per cent to 80 per cent of the women, a woman of 40 or over may be considered as approaching the menopause. In properly selected cases in this age group, radiation is preferred to hysterectomy because, (1) it has proved to be efficient, (2) it is practically without risk, and (3) it is much more economical. Furthermore repeated observation of these patients gives rise to the impression that the menopausal symptoms which develop are no more severe nor of longer duration than those associated with the normal menopause.

A diagnostic dilatation and curettage should always precede the treatment to avoid overlooking possible malignancy. In the presence of palpable disease of the adnexa, surgical intervention is preferable, since it permits adequate inspection of the pelvic lesion. Furthermore, we are of the opinion when fibromyomas are present which exceed the size of a two and one-half to three months' pregnancy that surgical removal is better than irradiation, because it completely eradicates the lesion, prevents recurrence of symptoms, and avoids complications due to degenerative changes in the tumor.

In young women, radiation should be used only when conservative measures fail or other methods of treatment are contraindicated, since castration by any method is to be avoided in this group whenever possible. Since the methods of temporary or subcastration seem so unreliable, we advise against the use of even small doses of radiation in these patients. If conservative measures fail in the treatment of abnormal bleeding in the young woman, it is felt that hysterectomy is to be preferred, since retention of the ovaries is definitely desirable for their psychic value, and also in the hope that they will retain their endocrine function. Radiation, however, should be used in these patients if they are poor operative risks."

COMMENT: This is an excellent contribution, made especially so by the fact that it represents both the gynecological and the roentgenological departments of an excellent hospital.

Irradiation of benign pelvic lesions is a splendid form of treatment in a very carefully selected group of patients. It is significant that only 260 patients were treated for benign uterine bleeding at the University Hospital in Ann Arbor during 12 years' time. Considering the great number of patients who undoubtedly presented themselves with a complaint of abnormal uterine bleeding during this long space of time, this is a very small per centage and indicates very careful selection of the material for this type of therapy.

Despite the fact that irradiation is a good treatment in selected patients with benign pelvic lesions, one must be familiar with the rather long list of contraindications to its use in order to obtain the satisfactory results such as reported here.

It should also be emphasized that all of the patients reported here who were treated for benign abnormal uterine bleeding had a diagnostic dilatation and curettage preceding treatment.

Their observations concerning libido are particularly interesting.

Wendell Long.

EYE, EAR, NOSE AND THROAT

Edited by Marvin D. Henley, M. D.
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"A Digest of the Transactions of the American Laryngological, Rhinological, and Otological Society, 45th Annual Meeting." pp: 67-71; Published in the Digest of Ophthalmology and Otolaryngology, March, 1941. Original Article by Bert E. Hempstead, M. D., Rochester, Minn.

Surgical treatment of chronic maxillary sinusitis may be either radical or conservative; definite and rigid rules cannot be laid down, for treatment must be suited to the individual patient. There are patients for whom only a radical operation will suffice, but usually, conservative measures will restore the antrum to a normal state.

To determine the type of operation to be used, a careful preoperative study of the maxillary sinus should be made. This examination is not complete without use of the antroscope. By means of this instrument, the presence of polyps, cysts and tumors, as well as the condition of the lining mucous membrane, often can be determined.

To estimate the benefit derived from the conservative treatment of chronic maxillary sinusitis, I studied, in 1927, the histories of 385 patients so treated. An effort was made to determine the causative background and thereby to ascertain whether certain types of disease of the antrum would respond to conservative methods. Most of the patients could not give the date of the onset of symptoms, nor did they know whether their

symptoms accompanied a cold in the head. Many were able to trace the infection in the antrum to a diseased tooth or to its extraction. In 22.5 per cent of the cases, the infection clearly followed extraction of abscessed molars. In sixty-three cases, a fistula was present, extending through the alveolar process and into the antrum.

Antral infection of dental origin was usually marked by several characteristics: (1) the infection was confined to the antrum and was unilateral; (2) the upper sinuses were not involved; (3) the pus was foul-smelling, similar to that associated with infection caused by the colon bacillus; (4) polyps had not formed; and (5) healing was unusually rapid after institution of suitable drainage and ventilation. In all these cases the infection in the antrum cleared, and many of the alveolar fistulae closed, after currettement. In the other cases, it was necessary to close the fistula by utilization of some form of flap. All fistulae eventually were closed.

A review of these 385 cases shows that it was necessary to do a Caldwell-Luc operation in two cases. In both cases the antrum was filled with polyps. In two cases, osteomyelitis of the maxilla followed; one patient died and one recovered. The case of the patient who died was complicated by severe bilateral bronchiectasis and marked inanition. Stenosis of the tear duct associated with epiphora was seen in three cases. In four cases, membranous closure of the window occurred, and a second operation was necessary.

Tucker called attention to the fact that the major part of the pathologic change common to sinus disease occurs in the mucous membrane. He believes that conservative measures should be employed. In a series of 673 patients having chronic maxillary sinusitis who were operated on by the intranasal method, it was necessary to do a Caldwell-Luc or some other type of radical operation for six. Forty-seven cases in this series, or 7 per cent, were of dental origin. It is interesting to note that in the cases of nine patients in whose sinuses polypi could be seen at operation, the polypi could not be seen later. It seems to me that this observation is proof that drainage and ventilation do permit the diseased membrane to return to normal and that its exenteration is not always necessary.

Stevenson in an excellent article reported 192 cases of chronic maxillary sinusitis. He came to the conclusion that intranasal surgical treatment was the method of choice for primary attack in all cases of chronic antral infection. Ninety-four and two-tenths per cent of his patients recovered completely following this procedure.

Of the group of 123 patients not seen after operation, 104 reported that they had experienced no return of their former symptoms. Four of the nineteen patients who reported unsatisfactory results were undoubtedly allergic. Two had severe bronchiectasis. The poor end-result for another patient was the result of undiagnosed frontal sinusitis. A poor result was obtained for one patient who had severe diabetes associated with ozena. One patient who had a large choanal polyp was not cured. Severe osteomyelitis was the cause of another failure. For two patients, failure of the surgeon to close an alveolar fistula was the cause of a poor result. For another patient, complete relief was obtained after a Caldwell-Luc operation had been performed. Four patients reported poor results; no cause for the failure of operation could be determined.

"Simultaneous Immunization Against Whooping-Cough and Diptheria." By A. H. Schutze, The Lancet, 1940, ii, 192.

A series of experiments was conducted on guinea pigs and rabbits. These were given diphtheria toxoid and pertussis vaccine at the same time. These experiments demonstrated the fact that the potency of one solution did not suffer by the inclusion of the other one. If this is true it will be a matter of great convenience to immunize against diphtheria and whooping cough at the same time.

"The Treatment of Cancer of the Larynx." By Chevalier L. Jackson, M. D., Philadelphia, Pa., Southern Medical Journal, March, 1941.

This is a very valuable, detailed report, accompanied by beautiful illustrations. I know of no other recent publication that is comparable. The author's own summary is as follows:

(1) The treatment of a cancer of the larynx should be undertaken only after a biopsy-proven diagnosis has been made.

(2) Laryngofissure is the treatment of choice in anterior intrinsic cordal cancer, using (a) the clipping technic if the lesion involves only the middle third of the cord, and (b) the Chevalier Jackson anterior commissure technic if the lesion reaches the anterior commissure. The operation of laryngofissure should give over 80 per cent cures in suitable cases.

(3) Laryngectomy is indicated if the lesion involves the arytenoid region, with impairment of motility, or if it extends subglottically. Attention is called to the recent trend toward a "narrow-field" type of operation. The operation of laryngectomy should have a very low operative mortality, and should give at least 50-60 per cent cures in advanced intrinsic cases beyond the possibility of cure by laryngofissure.

(4) Irradiation, by the protracted fractional (Coutard) technic or by radium bomb may be used instead of laryngectomy in cases where the posterior extent is a little too great for laryngo-fissure, but preferably when the cord is not fixed. It may also be used when operation is refused, or when the patient's age, temperament or general physical condition contraindicate operation, and in extrinsic inoperable cases. In a small series of cases treated by x-ray alone a three-year cure was obtained in 45 per cent.

(5) Histopathology should be studied and recorded. It is of particular value in the selection of treatment in borderline cases. Tumors of well differentiated "low grade" type are probably of the best prognosis, whether treated by surgery or by irradiation, but we always consider surgery as the first choice in such cases, provided there is no contraindication.

(6) Curing the cancer is the first consideration in treating cancer of the larynx, but the second consideration is voice. After laryngofissure, the patient will have a useful voice, but its tone quality and carrying power cannot be guaranteed. The bucco-esophageal voice that can be developed after laryngectomy is quite satisfactory and vastly preferable to the voice produced by the artificial larynx. While this bucco-esophageal voice is picked up spontaneously by many patients, systemic instruction is of great help. The voice after treatment by irradiation will be best of all, but this fact should not lead us to give this treatment when surgical extirpation is indicated.

"Meniere's Syndrome." By John H. Talbot, M. D., and Madelaine R. Brown, M. D., Boston. Journal A. M. A., January 13th, 1940. cxiv, 2.

Forty-eight patients with Meniere's syndrome were studied. The concentrations of the acid base constituents such as total fixed base, sodium, potassium, calcium, chloride, total carbon dioxide, phosphate, protein, and non-protein nitrogen, were determined on 28 patients. There was no considerable variation from normal findings. Four of the patients were checked during an acute attack and these showed an increase in the concentration of serum potassium and a decrease of serum sodium. By giving large amounts of sodium salts intravenously and orally an attempt was made to produce an attack. This was a failure. Therefore, it was concluded that hydration, alkalosis, or an elevated serum sodium does not necessarily accompany Meniere's syndrome. The patients were treated for 18 months with a high potassium intake. They were all benefited but not cured. The article is accompanied by a bibliography and tables.

PLASTIC SURGERY

Edited by George H. Kimball, M. D., F. A. C. S.
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"The Pedicle Tube-graft in the Surgical Treatment of Hypospadias in the Male With a New Method of Closing Small Urethral Fistulas." By David M. Davis, M. D., Philadelphia, Penn., S. G. & O., December, 1940.

The author calls attention to the fact that successful surgical correction of hypospadias in the male depends entirely on meticulous attention to a multitude of small details. He also points out that the technique in this particular operation is not standardized. To create a condition as near normal as possible requires several plastic procedures. The author states that the construction of a urethra is now possible.

The first step in the correction of the so-called penoscrotal hypospadias is to eliminate the congenital chordee before any further surgery is attempted. The author points out by illustrations how this maneuver is carried out. In order to construct a hairless urethra of sufficient caliber and of adequate length, he uses the skin from the dorsum of the penis.

After the tube is made, the author makes an opening through the body of the penis and brings the tube out to the tip. He later utilizes tissue from the ventral side to complete the tube. Like most men who have done this kind of work the author has had some cases of fistula. He therefore shows in detail a method of closure. The article is well illustrated together with some case histories.

Conclusions: The technique of reconstruction of a urethra in cases of hypospadias is gradually being improved. Anyone who undertakes such a task must avail himself of every possible advantage to avoid disaster. All of these cases are long drawn out and the people must be advised as to the possibilities.

The author stresses diversion of the urinary stream from the operative field during the healing period.

CARDIOLOGY

Edited by F. Redding Hood, M. D.
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"The Treatment of Edema." H. M. Marvin, M. D., New Haven, Conn., Modern Concepts of Cardiovascular Disease, March 1941.

Edema may be defined as the presence of excessive quantity of serous fluid in the intercellular spaces of the subcutaneous or deeper tissues and in the serous cavities. The presence of edema is an indication of some abnormal process, and the aim of medical treatment should be the correction or removal of the cause. Of the many conditions with which edema may be associated only one will be considered in this review, namely congestive heart failure.

The capillary wall is freely permeable to water and to most of the crystalloids of the blood, and these substances would pass readily into the tissue spaces if there were no opposing factor. But the presence of proteins, chiefly albumin, in the blood plasm exerts a strong counter influence, for these proteins do not pass readily out of the capillaries and by remaining in the lumen they tend to draw fluid into the vessels through the process of osmosis. It is clear that the direction in which fluid will pass through the capillary wall will depend largely on the balance of these two forces. Edema may result therefore from either or both of two changes: an increase in capillary pressure or a decrease in the amount of protein substances in the blood plasma.

Other factors that may be important include a high intake of salt (which increases edema if fluid is available), a high intake of fluid (which increases edema if salt is available), and a warm environment.

In the kidney there are two opposed processes involved in the formation of urine. According to present beliefs the renal glomerulus is essentially a filter through which enormous quantities of protein-free filtrate pass into the tubules. In the tubles most of this is reabsorbed and the small remaining portion is excreted as urine. It is therefore apparent that the volume of urine may be raised by an increase in glomerular filtration, a decrease in tubular reabsorption, or both.

In congestive heart failure, the filtration pressure in the capillaries is increased by the rise in general pressure that characterizes heart failure, and probably also by the muscular inactivity that accompanies it. In addition, the capillary wall appears to be more permeable to water and crystalloids, and in many cases the colloid osmotic pressure of the plasma is decreased because some protein passes into the tissue spaces. The hypoproteinemia thus caused is increased at times by the loss of large quantities of albumin in the urine, by anorexia which prevents an adequate protein intake, and unfortunately by a low protein diet that is often deliberately but mistakenly prescribed by the physician.

It must be emphasized that the underlying heart failure should be treated as adequately as possible before specific measures for the removal of the edema are employed. Such treatment includes full therapeutic doses of digitalis, complete or partial bed rest, necessary sedatives to ensure adequate sleep and strict limitation of the fluid and salt intake. There are two important exceptions that should be noted to this general rule. If there is much fluid in one or both pleural cavities, sufficient to interfere with respiration, it should be removed at once by paracentesis. If the edema elsewhere is so marked as to result in danger or extreme discomfort, mercurial diuretics should be administered immediately, without awaiting the possible beneficial effect of digitalization.

DIURETICS. Xanthines. The Xanthines, or purines, that are of clinical value consist essentially of theophylline and theobromine and their derivatives. Theophylline even in small doses is apt to provoke nausea and vomiting within one or two days. Vomiting is less apt to occur, and the total diuretic effect is usually greater, if this drug is administered intermittently for periods of only two or three days at a time. Theophylline sodium acetate and theophylline ethylene dinmine (amionphylline) are tolerated far better than is theophylline alone. Aminophylline is less potent, but in doses of 1½ to 3 grains (0.1 to 0.2 Gm.) three or four times a day is sometimes effective in causing the disappearance of slight or moderate edema, or in preventing its reappearance.

Theobromine and its compounds are in general less powerful diuretics than theophylline but they are usually well tolerated in effective dosage and for this reason are often preferable. Theobromine with sodium salicylate (diuretin) is one of the mildest of all diuretics, is well tolerated by most patients, but must be given in large doses (40 to 60 grains; 2.6 to 4 Gm.). Even these quantities are somewhat ineffective. A more valuable preparation is theobromine calcium salicylate, or theocalcin, which contains about 48 per cent of theobromine. This is a potent diuretic, seldom causes unpleasant symptoms, and may be continued for many days if necessary.

Th precise manner in which the xanthines cause diuresis is not fully known. Some authorities believe that it is chiefly by increasing the filtration through the renal glomerulus, while others ascribe it mainly to diminished reabsorption of water in the renal tubules.

Organic Mecurials. In general there can be no question that the mercurial diuretics are the most potent now available, although an occasional patient may respond better to some other. The best known, salyrgan, contains about 10 per cent of mercury, and is effective only when administered by intramuscular or intravenous injection or in rectal suppositories. The effectiveness of salyrgan is greatly increased if acid-producing salts are administered by mouth for three or four days prior to the injection. Ammonium chloride or ammonium nitrate are those most frequently employed for this purpose,

and doses of 45 to 120 grains a day (3 to 8 Gm.) are advocated.

Salyrgan is usually given in a dose of not more than 0.5 to 0.75 cc. at the first injection, in case there should be an idiosyncracy or unusual reaction. Subsequent doses are usually 2 cc., and may be administered every third or fourth day if necessary. If it is to be given at such intervals, the ammonium salt may be continued at the desired level without intermission.

In the past decade most mercurials have been modified by the addition of theophylline, inasmuch as studies upon humans and animals have shown conclusively that the combination is far more potent than either alone.

Contraindications to the use of the mercurial diuretics are the presence of acute nephritis or of ulcerative colitis. There is little acceptable evidence that the kidneys are injured by the mercury, even after scores or hundreds of injections, and it should be emphasized that the mercuricals, especially when combined with theophylline, are safe, highly effective, and usually retain their full potency over long periods of time.

Potassium Salts. It has long been known that in the human being and the experimental animal, sodium and potassium salts exert directly opposite effects upon the retention or excretion of fluid by the tissues. The greater the intake of potassium, the greater will be the excretion of water; conversely, a high intake of sodium will result in greater retention of water. Potassium salts have been found highly effective diuretics in many cases of congestive heart failure, and not infrequently prove more satisfactory than any other because they can be administered by mouth without discomfort, and may be continued over long periods of time without loss of effectiveness. Sodium chloride must be eliminated from the diet as completely as possible, since the objective is to replace sodium by potassium. If a saltless diet proves unpalatable, crystalline potassium chloride may be sprinkled on the food as freely as desired.

Urea. Urea has been in fairly general use as a diuretic agent in congestive heart failure for nearly twenty years. It must be given in large doses, usually from 30 to 60 grams (Grs. 450 to 900) a day; such doses, if tolerated, may be continued for months or years without harmful effects and with no decrease in diuretic potency. Grapefruit juice, cranberry juice, tomato juice, and syrup of acacia are especially recommended as vehicles, but even with these it may prove necessary to omit the medication for a few days at intervals in order to prevent nausea and vomiting.

It is less apt to cause distress if given very cold and immediately before or after a meal.

Urea is rapidly excreted by the kidney and carries with it large quantities of water; this mechanical diuresis is aided by diminished reabsorption in the renal tubules. The only important precaution that should be observed in its use is to make sure that it is being excreted.

Bismuth. Bismuth sodium tartrate has been found to exert an excellent and prolonged diuretic action in some cases of congestive heart failure, but has not been widely accepted, probably because of the more spectacular action of the mercurials in most cases. Bismuth is administered by intramuscular injection in doses of 0.030 Gm. (Gr. ½), and may lead to diuresis that persists for from four to eighteen days; toxic effects are practically unknown.

"Angina Pectoris, Coronary Failure and Acute Myocardial Infarction." By Herman L. Blumgart, M. D.; Monroe J. Schlesinger, M. D.; and Paul M. Zoll, M. D., Boston. Digest of Treatment, March, 1941.

A detailed clinical and pathological study of 355 consecutive cases examined post mortem has been made with particular reference to the role of coronary occlusions and the collateral circulation in angina pectoris, coronary failure and acute myocardial infarction.

In this series, 12 of 45 hearts with acute myocardial infarction showed neither acute coronary thrombosis nor acute coronary occlusion. Conversely, 26 hearts showed old complete occlusion without any myocardial infarction. Eleven additional hearts had old occlusions and fresh myocardial infarction but no fresh occlusions, Every patient suffering from angina pectoris without evidence of valvular disease or arterial hypertension has shown old complete occlusion of at least one major cornary artery at post mortem examination. In the majority of instances at least 2 of the 3 main coronary arteries had been occluded before the terminal illness. The apparent inconsistency between the presence of obstructive arterial lesions and the absence of significant pathological or clinical evidence of myocardial damage is explained by the demonstration of a collateral circulation which serves as a bypass in relation to the obstruction in each of these hearts.

The results of these studies indicate that disparities between the clinical diagnosis and the pathological condition in the heart are largely due to the fact that the terms "coronary thrombosis" and "coronary occlusion" refer to a pathological event which may give rise to various clinical syndromes or, indeed, to no clinical symptoms or signs at all. No characteristic syndrome appears to be necessarily associated with coronary arterial occlusion per se. In the past, the terms "coronary thrombosis" and "coronary occlusion" have been used by many clinicians to denote acute myocardial infarction. Our observations as well as those by others demonstrate, however, that acute myocardial infarction bears no necessary relation to the formation of thrombi or occlusions; either may occur in the absence of the other.

Our data are in accord with the current belief that cardiac pain is a manifestation of myocardial ischemia. In the three distinct syndromes, angina pectoris, coronary failure and acute myocardial infarction, the underlying mechanism seems to be a relative disproportion between the demands of the heart for blood and the supply of blood through the coronary arteries. The changes in the myocardium resulting from this disproportion depend solely on the extent and duration of the relative ischemia, not on the manner by which they are produced. If the duration of the ischemia, as in angina pectoris, is brief, no permanent myocardial damage may occur or only microscopic damage may occur or only microscopic foci of necrosis and fibrosis may result. Even with more prolonged attacks, as in coronary failure, if the demands on the myocardium are quickly reduced by rest and sedatives and the control of abnormal cardiac rhythm, no structural damage may result. In the instance of myocardial infarction the ischemia is of such prolonged duration that irreversible structural damage results, giving rise to the clinical signs of tissue destruction.

The absolute necessity for immediate and complete bed rest, sedation, reduction of excessively high cardiac rates and other measures designed to reduce the work of the heart in the presence of prolonged cardiac pain is obvious as a means of limiting the extent of myocardial necrosis or even preventing its development. Such a regimen also affords an opportunity for the development of a more adequate collateral circulation.

ORTHOPAEDIC SURGERY

Edited by Earl D. McBride, M. D., F. A. C. S.
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"Experimentelle Untersuchunges Uber Dis Osteogenese Und Die Biochemie Des Fracturcallus (Experimental Investigation of Osteogenesis and the Biochemistry of Callus)." Svante Annersten. Acta Chirugica Scandinavia, LXXXIV, Supplementum LX, 1940.

On the bases of the literature, animal experimentation, and clinical findings, the writer offers a detailed account of the causation of osteogenesis, and the chemistry and mechanism of ossification. He gives up hope of discovering the mechanism of the formation of callus on the

basis of morphology. He proves that bone can be formed in normal muscle by the injection of a non-specific, thermostable (up to 78 degrees centigrade) alcohol, ether, or benzol extract of normal bone. This suggests that in the formation of callus, the osteogenetic substance as well as the calcium comes from local bone fragments.

The local chemical process of ossification of callus is discussed in detail. In the first few days after the fracture, there is a rapid increase in the phosphorus content of the surrounding musculature. After about seven days the calcium content rises more rapidly than the phosphorus, until the calcium-to-phosphorus ratio of somewhat more than twice that of adult bone is reached. The phosphorus content of blood plasma, unlike the calcium content, increases during callus formation.

The increase of insoluble carbonate comes at a later stage of callus ossification. Increase in bicarbonate appears early, perhaps with a beneficial local alkalizing effect. Hydrogen-ion determinations show that as callus ages, there is an appreciable increase in alkalinity. This alkalinity favors the deposition of tertiary calcium phosphate, and the activity of phosphatase which is increased in amount in callus.

"Transitory Synovitis of the Hip Joint in Children." Solomon Rauch. Am. J. of Diseases of Children, LIX, 1245, June, 1940.

This condition is described as a non-specific, relatively transient inflammation of the synovial membrane of the hip joint of a child. The onset may be acute or insidious, and, clinically, there are symptoms of pain, limp, or unwillingness to walk, and restriction of motion, especially in abduction, extension, and internal rotation. Laboratory evidence of infection, positive tuberculin reaction, and roentgenographic evidence of abnormality are all lacking. The treatment is conservative, and the prognosis for functional recovery excellent. Nearly all recover with two or more weeks in bed.

The author goes thoroughly into the previous literature on the subject as well as into multitudinous points of differential diagnosis. Forty conditions are listed resembling transitory synovitis of the hip joint, although tuberculous coxotis is given the most emphasis in the discussion.

Thirty-seven case histories are presented in tabular form and various correlations made from the facts. The duration of the condition was from seven to sixty days, with an average of thirty-two days.

"Influence of Fusion of the Spine on the Growth of the Vertebrae." S. L. Haas. Archives of Surgery, XLI, 607, September, 1940.

In the growing spinal column what happens to growth when the spinous processes are fused?

With this question in mind, Haas studied the effects of spinal fusions in young dogs. In five instances the spinal fusions were performed by the Hibbs technique, and in twelve by the Albee technique. Modifications of these procedures were used in five other experimental animals.

It was found that the vertebrae continued to grow in length until the fusion became firm. The Hibbs operation, with its mass of soft callus, allowed greater growth than the Albee operation with its fixed graft, but growth continued even after the fusion was solid. However, because the elongation was greater in the anterior part of the bodies of the vertebrae than in the posterior part, a lordosis developed with compression of the intervertebral discs and premature ossification of the epiphyseal cartilaginous plates, particularly near the posterior portions of the bodies. Haas calls attention to the fact that these changes are much more pronounced in dogs than they are likely to be in humans, because the growth of the spinal column is quite rapid in the experimental animal, and is completed in a period of about nine months, while in the human the period of growth may extend from fifteen to twenty years. He offers the hope that the ability to produce deformities by localized fusions may help overcome fixed deformities in the opposite direction.

"Tuberculosis of the Knee. A Follow-up Investigation of Old Cases." R. C. Murray. The British Medical Journal, II, 10, July 6, 1940.

The author reports that in 2,922 cases of bone and joint tuberculosis, knee tuberculosis was found in 11 per cent of the cases. An investigation of 124 cases, picked at random from this 11 per cent, and all followed for at least five years, was made. Biopsy was not done on any of them, and the diagnosis was made purely on clinical evidence. Patients were divided into three groups and treated as follows: (1) Thirty-three with synovial involvement were treated conservatively with a Thomas splint, and 30 per cent had a full range of motion at the time of collecting the statistics. (2) Seventy patients with focal articular involvement were treated first conservatively and then by excision. The result in this group of cases were ankylosis in 45 per cent after arthrodesis and in 10 per cent after conservative care, and the highest mortality,—21 per cent. (3) Seven patients had extra-articular involvement. Five of them healed without invasion of the joint, but in two the joint was affected. One of the conclusions drawn is that "synovial tuberculosis progresses to definite bone changes in 45 per cent of the cases."

INTERNAL MEDICINE

Edited by Hugh Jeter, M. D., F. A. C. P., A. S. C. P.
1200 North Walker, Oklahoma City

"The Diagnosis of Hemophilia." By Armand J. Quick, Ph.D., M.D., Associate Professor of Pharmacology, Marquette University School of Medicine, Milwaukee, Wis. American Journal of the Medical Sciences, Vol. 201, No. 4, April, 1941.

Dr. Quick, in this article, points out some of the problems connected with the diagnosis of hemophilia and as a result of certain observations has given a test which appears to be very specific and should be extremely helpful in all potential-type cases. The test is as follows:

By venipuncture 4.5 cc. of blood are drawn and mixed immediately with 0.5 cc. of 0.1 M sodium oxalate. The blood is divided into two equal portions. One-half is centrifuged for 5 minutes at a rate not over 1000 r.p.m., while the other half is subjected to a centrifugation of 3000 r.p.m. for five minutes in an Angle centrifuge. The clotting time of each specimen is tested as follows: In a small test tube, 0.1 cc. of plasma is mixed with 0.2 cc. of 0.0125 M calcium chloride. The tube is placed in a water bath kept at 37½° C., and tilted occasionally. The exact time required for the formation of a solid clot is recorded.

Solutions: Sodium oxalate 0.1 M: 1.34 gm. of sodium oxalate is dissolved in 100 cc. of distilled water. Calcium chloride 0.0125 M.: 0.14 gm. of anhydrous calcium chloride and 0.42 gm. sodium chloride are dissolved in 100 cc. of distilled water.

The principle involved is the clotting time of recalcified plasma. The coagulation time of oxalated hemophilic plasma subjected to high centrifugation is markedly lower than slower centrifuged plasma. An outline for the differential diagnosis is given.

"The Diagnosis of Trichinosis by Skin and Percipitin Tests." By James B. McNaught, Rodney R. Beard and Jack D. Myers. American Journal of Clinical Pathology, Volume 11, Number 3, March, 1941, Page 195.

Observations in connection with acceptable methods of testing for trichinosis are given. A method is outlined for the preparation of the antigen, two types of skin reaction, the delayed and immediate are discussed and results given, and the accuracy of precipitin tests is reported.

35 of 36 persons with classic findings of trichinosis eventually gave positive skin reactions.

Incidence of trichinosis in San Francisco was found by the skin test to parallel reports obtained by examination of digested pieces of diaphrams from autopsy specimens (roughly 24 per cent). Eosinophilia is considered to be the most helpful sign indicating but not diagnosing trichinosis.

"Infectious Mononucleosis—A Diagnostic Problem." By Samuel J. Werlin, M.D., Vera B. Dolgopol, M.D. and Morris E. Stern, M.D., New York. American Journal of the Medical Sciences, Volume 201, Number 4, Page 474, April, 1941.

The authors have given interesting data on distribution, clinical picture, laboratory findings and differential diagnosis in infectious mononucleosis. Three interesting cases are reported. The following interesting conclusions are made:

1. Patients with infectious mononucleosis often are severely ill. An extensive pharyngitis is usually present, often simulating diphtheria.

2. Cervical lymphadenopathy in early infectious mononucleosis may occasionally simulate mumps.

3. Early differentiation of infectious mononucleosis from diphtheria is desirable in order to avoid unnecessary administration of diphtheria antitoxin and sensitization of the patient to horse serum.

4. Cases of clinical diphtheria which do not respond to antitoxin must be investigated hematologically and serologically for the possibility of infectious mononucleosis.

5. Non-toxic diphtheria-like bacilli may be present in the nose and throat of patients with infectious mononucleosis.

6. In children the highest white blood counts are observed during the first week of illness, in adults in the second week of illness.

7. The heterophil antibody reaction was positive in ninety per cent of 21 patients of this series.

8. The titer of sera showing positive heterophil antibody reactions remains constant for months, if the sera are stored in an icebox. Positive sera may be used as control in performing the test with unknown sera.

UROLOGY

Edited by D. W. Branham, M. D.
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"Factors Contributing To the Development of Hypertension in Patients Suffering from Renal Disease." By Edgar A. Hinds, Jr., M. D., and Howard H. Lander, M. D., Rochester, Minn., A. M. A. Journal, March, 1941.

Since Goldblatt and others have succeeded in producing hypertension in animals through the mechanism of renal ischemia there has been a revival of interest in the question of the renal factor in the production of essential hypertension.

The present report concerns the study of 264 patients suffering from various urological conditions who have returned to the clinic 10 or more years after their first visit. The average interval between first and last visit was fifteen years. The average age was 38.8 at the time of first visit, The urologic pathology were conditions such as hydronephrosis, renal stone, pyelonephritis, etc. All had blood pressure readings of not more than 145 systolic and 90 diastolic.

In a summary of the study it was noted that in patients with urologic disease who had a high normal pressure on their original visit, they were four to five times as likely to have hypertension subsequently as those who had a low normal pressure regardless of the type or extent of the urologic lesion. In a control series of patients who had no urologic disease there was little difference in the subsequent development of hypertension as compared to those who had actual renal pathology.

Heredity plays some part in the development of hypertension as a study of the family history shows that hypertension is five times as probable in those who have a family history of hypertension as compared to those who have a negative family history.

Although the data is small a belief is engendered that the presence or absence of urologic disorder is of not much importance in determining whether hypertension will develop. Other factors, heredity, etc., probabily play the chief role in determining why some patients who have a certain type of renal disease will develop high blood pressure.

Comment: One sees in the literature an increasing number of case reports concerned with the treatment of hypertension by surgical procedure and of these methods of treatment one of the most drastic is the removal of the unilaterally diseased kidney for the cure of high blood pressure. Undoubtedly we will begin to see much more of such surgery as enthusiasm goes beyond reasonable bounds with the inevitable result that useless and unnecessary operations will be performed in an ill-advised attempt to extend this type of treatment.

I have never been convinced that hypertension and urologic disease had much in common except in the rare exception of the contracted kidney resulting from past sclerotic changes. The removal of such kidneys may be of value in reducing blood pressure.

A few years ago I made a study of over two hundred cases of prostatic obstruction noting particularly the incidence of hypertension. It was my observation that the number of hypertensive cases in these ranged no higher than in a similar age group who have normal urinary tract function.

The kidney may play some part in the production of an occasional instance of hypertension but I believe, as do the authors, that in the majority, an inherent susceptibility to this disease is the more important factor.

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Atoka-Coal	J. B. Clark, Coalgate	J. S. Fulton, Atoka	
Beckham	H. K. Speed, Sayre	T. W. Pratt, Cheyenne	Second Tues, eve.
Blaine	L. R. Kirby, Okeene	W. F. Griffin, Watonga	
Bryan	J. T. Colwick, Durant	W. K. Haynie, Durant	Second Tues, eve.
Caddo	E. W. Hawkins, Carnegie	G. E. Haslam, Anadarko	
Canadian	P. F. Herod, El Reno	A. L. Johnson, El Reno	Subject to call
Carter	R. C. Sullivan, Ardmore	H. A. Higgins, Ardmore	
Cherokee	P. H. Medearis, Tahlequah	Isadore Dyer, Tahlequah	
Choctaw	C. H. Hale, Boswell	Floyd L. Waters, Hugo	
Cleveland	D. G. Willard, Norman	Phil Haddock, Norman	Thursday nights
Comanche	G. G. Downing, Lawton	Donald Angus, Lawton	
Cotton	Mollie Scism, Walters	R. M. Van Matre, Walters	Third Friday
Craig	Powell L. Hays, Vinita	Paul G. Sanger, Vinita	
Creek	P. K. Lewis, Sapulpa	Wm. P. Longmire, Jr., Sapulpa	
Custer	C. Doler, Clinton	W. C. Tisdal, Clinton	Third Tuesday
Garfield	V. R. Hamble, Enid	John R. Walker, Enid	4th Thursday
Garvin	Robert M. Alexander, Paoli	John R. Callaway, Pauls Valley	Wed. before 3rd Thur.
Grady	Turner Bynum, Chickasha	Roy E. Emanuel, Chickasha	3rd Thursday
Grant	I. V. Hardy, Medford	E. E. Lawson, Medford	
Greer	J. B. Lansden, Granite	J. B. Hollis, Mangum	
Harmon	Samuel W. Hopkins, Hollis	Wm. M. Yeargan, Hollis	1st Wednesday
Haskell	Wm. S. Carson, Keota	N. K. Williams, McCurtain	
Hughes	William L. Taylor, Holdenville	Imogene Mayfield, Holdenville	First Friday
Jackson	Raymond H. Fox, Altus	Willard D. Holt, Altus	Last Monday
Jefferson	D. B. Collins, Waurika	J. I. Hollingsworth, Waurika	
Kay	J. G. Ghormley, Blackwell	L. I. Wright, Blackwell	3rd Thursday
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Kiowa	J. M. Bonham, Hobart	J. L. Adams, Hobart	
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Lincoln	J. W. Adams, Chandler	C. W. Robertson, Chandler	First Wednesday
Logan	Wm. C. Miller, Guthrie	J. L. LeHew, Jr., Guthrie	Last Tuesday evening
Marshall	John L. Holland, Madill	J. F. York, Madill	
Mayes	S. C. Rutherford, Locust Grove	E. H. Werling, Pryor	
McClain	B. W. Slover, Blanchard	R. L. Royster, Purcell	
McCurtain	R. D. Williams, Idabel	R. H. Sherrill, Broken Bow	4th Tues. eve.
McIntosh	D. E. Little, Eufaula	W. A. Tolleson, Eufaula	2nd Tuesday
Murray	P. V. Annadown, Sulphur	O. D. Thomas, Sulphur	
Muskogee	A. N. Earnest, Muskogee	S. D. Neely, Muskogee	1st & 3rd Monday
Noble	J. W. Francis, Perry	C. H. Cook, Perry	
Okfuskee	J. M. Pemberton, Okemah	L. J. Spickard, Okemah	2nd Monday
Oklahoma	George H. Garrison, Okla. City	W. W. Rucks, Jr., Okla. City	4th Tuesday
Okmulgee	I. W. Bollinger, Henryetta	M. D. Carnell, Okmulgee	2nd Monday
Osage	T. A. Ragan, Fairfax	George Hemphill, Pawhuska	2nd Monday
Ottawa	J. W. Craig, Miami	L. P. Hetherington, Miami	Last Thursday
Pawnee	M. L. Saddoris, Cleveland	Robert L. Browning, Pawnee	
Payne	A. B. Smith, Stillwater	Haskell Smith, Stillwater	3rd Thursday
Pittsburg	W. H. Kaeiser, McAlester	Edw. D. Greenberger, McAlester	3rd Friday
Pontotoc	E. M. Gullatt, Ada	R. E. Cowling, Ada	1st Wednesday
Pottawatomie	R. M. Anderson, Shawnee	Clinton Gallaher, Shawnee	1st & 3rd Saturday
Pushmataha	E. S. Patterson, Antlers	D. W. Connally, Antlers	
Rogers	W. A. Howard, Chelsea	P. S. Anderson, Claremore	1st Monday
Seminole	Claude S. Chambers, Seminole	Mack I. Shanholtz, Wewoka	
Stephens	E. C. Lindley, Duncan	John K. Coker, Duncan	
Texas	L. G. Blackmer, Hooker	Johnny A. Blue, Guymon	Subject to call
Tillman	T. F. Spurgeon, Frederick	O. G. Bacon, Frederick	
Tulsa	J. C. Brogden, Tulsa	Roy L. Smith, Tulsa	2nd & 4th Mon. Eve.
Wagoner	H. K. Riddle, Coweta	S. R. Bates, Wagoner	
Washington-Nowata	S. A. Lang, Nowata	J. V. Athey, Bartlesville	2nd Wednesday
Washita	A. S. Neal, Cordell	James F. McMurry, Sentinel	
Woods	C. A. Royer, Alva	O. E. Templin, Alva	Last Wednesday
Woodward	Joe L. Duer, Woodward	C. W. Tedrowe, Woodward	